

Vol. IV. No. 4.
April 4, 1901.



*Entered at the Chicago Post Office
as Second-Class Matter.*

Published every Thursday by the Cycle Age Co.,
324 Dearborn Street, Chicago. Eastern office,
150 Nassau Street, New York. Subscription—
Domestic, \$2.00; Foreign, \$4.00.

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JOSEPH J. MANDERY

Proprietor of the Rochester Automobile Co., One of the Pioneer Automobile Dealers

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EXHIBITORS PROFITED BY CHICAGO SHOW

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DURING the closing time of the show last week, when the exhibitors were shaking hands with one another, the management and all friends in sight, and were spreading to the four winds, President Allison of the Woods Motor Vehicle Co. said to a representative of this paper:

"You may say in the next issue that the Woods company did more business at the Chicago show than at any other two previous shows in this country, Madison Square Garden included."

This volunteered compliment to the business success of the Chicago show is but a sample of the similar expressions of approval and satisfaction heard on every side when an ear was lent to the story of the exhibitors. The exhibitors came to Chicago for business and one and all went home from Chicago satisfied with the business done and commenting on the fact that the exhibition had been the greatest selling show on record.

Scores of statements just as emphatic and just as gratifying to the management as that of Mr. Allison could be repeated had the exact terms of speech of each been retained in the memory and were they needed to convince.

Saturday evening Robert Shaw, who had charge of the Mobile display, said:

"We made sales to the extent of over \$40,000, and there is now in a down-town bank, subject to the order of the Mobile company, an amount equal to the total of the one-third deposits on all of the sales made. This was the best show at which to sell vehicles ever held, and if any did not sell as many as they desired it must have been because they did not do their share of hustling."

D. J. Post, of the Veeder Mfg. Co., who was interested mainly at the show in the disposal of Veeder odometers, stated that he had sold more goods up to Wednesday than he sold during the entire week at last November's Madison Square Garden exhibition.

Every show has its chief characteristic by which it is known. Thus the First National Automobile Exhibition in Chi-

cago is recognized as the greatest business show of the automobile industry in America up to the present time.

Several reasons may be given to support this result.

In the first place, the show was held at the right time—in the spring, at the commencement of the country's general buying time.

In the second place, it was more widely advertised among dealers than had been any previous show and the attendance of out-of-town agents and other trade people was not only gratifying but far in advance of the usual number. Those who came from all parts of the country to attend the show came to buy—and they did buy.

In the third place, Chicago is the best market center of the west and those who had not attended eastern shows were on hand to do business at the coliseum.

In the fourth place the invitations for the private inspection Friday evening, before the formal opening, were sent to the right class of Chicago residents and attracted the local automobile enthusiasts and those to whom the automobile appealed strongly and immediately and whose sentiments on the subject were backed by ready cash.

And fifth, free trade sessions in the morning permitted the exhibitors and dealers to quietly talk business without the interruptions consequent upon the passing of a hit-and-miss attendance.

These causes and effects had been calculated upon beforehand by the management, who knew full well from the early indications of a large attendance of out-of-town dealers that the buying and selling end of the coliseum show was an assured success. Previous experience in the management of the country's most notable selling cycle shows had taught the correctness of the policy of attracting the right kind of patronage.

Thus, from opening until closing days, the exhibition proved to be a lively mart of trade at which all participants, as well as those who came with their exhibits in their pockets, enjoyed a more profitable

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week than had been expected, and than is usually the lot of show exhibitors.

As nearly as the collective sales of the exhibitors can be approximated from figures turned in there were made during the week, sales amounting to over \$500,000. The show was a success financially, as well as in the direction of profitable publicity, to all of the exhibitors.

The exhibitors acknowledged this and the numerous unsolicited agreements to "come again next year," have left no doubt in the minds of the management that its strenuous efforts to make the show profitable to those who came to exhibit have been rewarded.

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To say that the show was successful and that it pleased the exhibitors does not by any means tell the entire story of the position of respect it has earned in the trade; for never was there an automobile or cycle show in this country in the making of which more hard work of the plain, hustling, Chicago sort, or more wholesome, American grit was expended than those in attendance and the trade at large might know that honest purpose and a desire to defeat heavy odds prompted the carrying out of plans; never was a show more demonstrative of the "I will" principle of doing business; never was a show made successful in the face of opposition of the persistent, annoying kind which confronted the Chicago exhibition from its inception, nearly a year ago, until the third or fourth day of the show's actual progress.

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To be frank with the reader, the show had been the subject of unfortunate occurrences and of intentional opposition, the latter inspired mainly by jealousy, the former mainly comprising those things which come to the lot of business men at wrong times, through pure accident. In order to more fully explain the obstacles which the management of the Chicago exhibition faced and overcame in order to not only hold the show, but to make it a success with a resounding echo, as well, a brief outline of its history is fitting.

The Motor Age first determined early last summer to hold an automobile show in Chicago. At that time there had been no exclusive automobile exhibition in this country. As soon as the feasibility of the plan was assured the date was set for a week in November of 1900. Plans were at once laid and arrangements made for securing the new coliseum for the purpose.

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Everything was in readiness for the immediate development of the work when the Chicago Inter Ocean announced that it would promote a combined automobile

tournament and exhibition in Washington park in September.

The prospectus following this announcement and the plans outlined by the Inter Ocean were so plausible in their character and scope that the Motor Age thought it recognized in the enterprise a deserving venture and a very desirable eye-opener for the automobile trade and sport in the west. Accordingly it withdrew its proposed November show and lent its support to the Washington park affair, believing, as did the rest of the trade at the time, that it was to be under the direct management of the Chicago Inter Ocean and not merely, as afterwards developed, the project of a professional "promoter" worked under cover.

The Inter Ocean event came and with its coming came also the quick realization that it was a fizzle in almost every respect. Dissatisfaction reigned on every side during and after its holding and almost every maker who brought goods to Chicago to show at that time went home feeling disgusted with the affair and with Chicago as an automobile market and show managing town.

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There even arose internal dissensions in the Inter Ocean office over the affair before it had been pulled off and it did not take the trade long to learn that the daily had but lent itself, unfortunately, to the assistance of the plans of those who did not know how to manage such an undertaking.

The tournament had given Chicago a black eye in the automobile trade. The Motor Age had given up its original date for a show, had through goodwill played second fiddle to a frost, had been placed at expense for which there was no return, and for its trouble was forced to face show management in Chicago after show management in Chicago had been disgraced by others.

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However, the Motor Age did not dally long on the subject of the unfortunate outcome of the Inter Ocean show. In fact, before the Inter Ocean show was concluded the Motor Age presented at Washington park a floor plan of the coliseum, printed announcements of the First National Automobile Show in Chicago to be held March 23 to 30, 1901, and set to work to make that show a success. This was over six months ago.

Early work on the spring show prospered nicely until, in October, the proprietor of a contemporary in the automobile trade paper field awoke to the fact that his generally busy hammer had been idle for a few weeks; and from him came the first opposition to the Motor Age show.

This opposition was in the form of that treacherous, jealousy inspired, mediocre,

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cowardly sort termed in the parlance of the cobble stones, "knocking." When the origin of its sound had been located it grew into a trifle bolder sort of plain, every-day opposition which was without effect until the holding of the New York show in November. Then its originator hid himself to the metropolis to attempt a decisive measure to put a stop to an enterprising enterprise which had become distasteful to him because it was not his, of him or for him—and for no other reason.



At the Madison Square Garden show the gentleman in question exerted his little influence toward the calling of a meeting of manufacturers to disapprove bodily of the Chicago show. This effort fell flat and resulted in the calling and holding of a general meeting of manufacturers in Madison Square Garden for the purpose of organizing a national association of manufacturers for no one particular purpose, but to better preserve the interests of the whole trade in every possible line.

An effort was made in this meeting to have action detrimental to the Chicago show taken, but it failed abruptly and its source was condemned thereafter to confine his opposition tactics to his original methods of behind-back attack and to culturing the seed early sown in the same pursuit.

The Motor Age assisted in every possible way the formation of the National Association of Automobile Manufacturers.

It was a surprise as well as a disappointment, then, when, about the first of the year, a bare quorum of the executive committee of that body met and passed a resolution to the effect that it recommended that members of the association, and other manufacturers as well, refrain from showing at any exhibition in Chicago except it were managed by the local automobile club.

Inasmuch as the local automobile club was neither in shape, nor possessed of the facilities and other requisites of show management nor of the immediate willingness, despite its avowal that it would promote such a show any time the manufacturers asked it to do so, this measure seemed hardly fair to the Motor Age and a representative of the paper went poste haste to New York city to present the true state of affairs to the association's committee.



Through the courtesy of several members of that committee a special meeting of the committee was called, and those present listened to the presentation of the subject by the Motor Age representative, learned that the show had been misrepresented to them, that a large part of the space in the coliseum had already

been sold, that the local automobile club had refused to co-operate and that all preparations were formulating well for the holding of a successful, fairly-managed event which would wipe from off the face of Chicago's "I will" young lady the blot left there by the Inter Ocean show.

The committee annulled its previous action and advised the trade of the fact. But fair as was this action in the matter, the previous blow had left its dent, and certain of the trade, as well as a few of the short-sighted members of the trade press, became fixed in the idea that because they had not wanted Chicago to have this show and that in opposition to their desires in the matter Chicago was surely to have the show, they must do all in their power to help discourage the trade, create the idea that it would not be a success and if possible ruin it.

The root which this unfair idea had taken became more apparent toward the final weeks of preparation and when it became finally known that the show was destined not only to be a representative one but a gratifying testimonial to the enterprise and grit of its managers, the attitude on the part of these few persons became in some cases almost hysterical in its frenzy to do harm.



The last two weeks of preparation:

The Remington Automobile Co., which had taken a large space, found it utterly impossible, despite desperate efforts, to get suitable vehicles ready for the exhibition.

The Baldwin Automobile Co., having failed and being in the hands of a receiver, was not able by any means to be ready to show.

The Scott Automobile Co., of St. Louis, just well under way in a new factory and working night and day, was forced to abandon the space for which it had contracted and withdraw because it was utterly out of the question to get even a single new vehicle into shape to exhibit.

The Olds Motor Works, which had been making extensive preparations for the debut of the Oldsmobile at the Chicago show was forced to retire because of the total destruction of its immense Detroit factory and every vehicle, but one old one, which it possessed.

The under current opposition continued until after the doors were open and did not finally subside until the show was half through its scheduled duration.

In spite of all this and in spite of rain every day of the show but one, mud all of the time, opposition to the show in the show by trade paper men without characteristic American loyalty and in perhaps one instance without honor (but to the credit of some let it be said there was co-operation by the more fair minded and enterprising papers), the manage-

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ment not only held the show but made it the most brilliant selling success of the year, satisfied the exhibitors and made friends of every one of them, demonstrated to all the unworthiness of the position of those who had attacked the show, published a daily trade paper in the interest of the show, introduced two brand new features—an invitation night and an automobile racing or speeding machine—gained the goodwill of all those in

attendance, assured success for a show next year and secured an option on the coliseum for the purpose, the coliseum management not permitting but one automobile show to be held in its building each year.

The Chicago automobile show was not only a success but it is now an established annual feature and has opened in Chicago one of the best automobile selling centers of the country.

THE LAST DAYS OF THE SHOW

During the last half of the week there were several particular features to make the exhibition interesting aside from the continuance of the regular routine of sales. Probably the two most notable of these were the floral parade and the final speed trials on the racing apparatus.

When the floral parade Thursday evening wended its way around the track it was evident at first glance that Robert Shaw's dos-a-dos Mobile would be selected as first prize winner by the judges. The crowds which lined both the inner and outer sides of the track were unanimous in the declaration that there could be no other result—and they were right.

The parade started about nine o'clock with ten vehicles in line. There were in reality eleven, for the train of beauties was headed by an original "push-mobile," the creation of the inventive and artistic geniuses of the Motor Age house cleaning staff. This outfit, whose chief decorative effect was evergreen, was true to its title and had not the slightest competition for the booby prize.

The other ten drivers and their respective blossom covered rigs were: Robert Shaw, Mobile steam; Mrs. M. E. Cook, Reading steam; Mr. Anderson, Mobile steam; J. H. Dousman, Milwaukee steam; F. P. Illesley, Milwaukee steam; Messrs. Temple, Dow, Newby and Wall, National electric, and O. V. Bachele, Bachele electric.

Mr. Shaw's prize winner was canopied with a floral parasol and although the Mobile engine under the seat did the real work the visible means of transit were winged doves drawing by ribbons. Second prize cup was awarded to Mrs. Cook and the Reading steam carriage driven by her.

The event was well received by the spectators, and after the vehicles in line had dispersed, most of them remained on the track for exhibition and ride furnishing purposes.

For the purpose of satisfying those who are desirous of ascertaining the relative speed of vehicles and who, in short, are fond of racing, the staff of the Motor Age designed the racing apparatus which, as

it turned out, furnished the greatest excitement of the week.

Its construction was by no means simple. Flanged pulleys were fastened to heavy steel shafts which ran on Moffett roller bearings. The front wheels of the vehicle to be tested rested on the front pulleys. Each rear wheel rested on two pulleys set about three inches apart. There were two of these machines, set up side by side, and overhead was a large dial bearing two hands which indicated the relative speed of the vehicles, one trip around the dial representing one-fourth mile.

During the first two or three days of the show a number of trials were made up against time, the best records made up to Tuesday being 57 seconds, by Bert Shaw. As the sport became more exciting the Moffett Vehicle Bearing Co. offered a silver cup to the man who made the best time during the week. The Hewitt-Lindstrom company's operator made a trial on Wednesday, and on Thursday, with a flying start, made the same time as Shaw.

The final trials were made on Saturday night, at which time the Hewitt-Lindstrom vehicle went the distance, with a flying start, in 47 seconds. Later the same vehicle, from a standing start, made 52 seconds, but the cup had been handed to Shaw, his time having been the best from a standing start up to the time the final trial was supposed to have taken place.

The Hewitt-Lindstrom company protested on the ground that the show had not closed. All parties consented to leave the final decision to the manager of the show and Mr. Shaw has agreed to deliver the cup in the event of the decision being against him.

Owing to the many requests for admission to the show the previous Sunday and to the desire everywhere expressed that the good and profitable time be extended as long as possible, the management decided Friday evening to open the show on the last Sunday, provided the exhibitors were all agreeable to this plan. To obtain the ready assent of the latter

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was easy and Saturday it was announced that the exhibition would remain open one day longer than scheduled.

The exhibits remained intact and Sunday afternoon and evening crowds gathered to inspect the displays and take rides on the track, which, as usual, was kept busy the entire time. Thus while Saturday night had been intended to virtually close the exhibition it was not until after the visitors had departed Sunday evening that the work of dismantling the

exhibits and packing the goods was begun.

Then, with the same promptness that put the show to rights when the exhibits were installed, the building was cleared, Monday about noon it was turned over to its next occupants and the first Chicago show was over. But it had left an indelible mark on the trade; a mark which signified energy and steadfastness of purpose, profitable exhibition of representative goods and goodwill for the management.

SHOW NOTES PICKED FROM THE DAILY

The Loomis Spider runabout joined the track carriages Monday and its nobby appearance and quiet running pleased the crowd.

The attendance was significant on account of the great number of ministers and doctors present. The professional classes are auto buyers.

The Milwaukee folks made a hit the latter part of the week by running on the track the bare running gear of a Milwaukee steam carriage.

The U. S. Ball Bearing Co. took orders for all the steering knuckles that it can produce, and filled the Snell Cycle Fitting Co. with work on forgings.

The floral decorations on Robert Shaw's prize-winning Mobile in the Floral parade were supplied by Walter Kreitling & Co., 10 Van Buren street, Chicago.

The American Roller Bearing Co., of Boston, shipped its exhibit from Chicago to the Pan-American exposition, where it intends to have a large display.

The Badger Brass Co. takes some pride in the fact that the vehicle which won first prize in the floral parade was equipped with Colar automobile lamps.

The Knox automobile showed itself in good form on the track early Monday, and the splendid little vehicle was in great demand with visitors all the rest of the week.

It is generally considered that Robert Shaw, with the Mobile Co. of America, was the most industrious of all in capturing people to ride his very handsome personal Mobile.

The New York type, DeDion-Bouton Motorette, attracted considerable attention because of its European style. Its action on the track was criterion-like, both relative to noise and management.

S. F. Heath, sales manager of the Wisconsin Wheel Works, arrived at the show Saturday, being attracted chiefly by the Wisconsin Wheel Works' exhibit at the Ralph Temple stand. Mr. Heath is one of the bicycle pioneers of the west and

for many years a leading dealer of Minneapolis.

The Milwaukee steam racer on the track attracted no end of comment and approval on account of its unique design for a steamer and its thoroughly well behaved manners.

Mr. Ferris, who was in charge of the Turner Brass Works' stand, claims that he wore out several pencils writing down orders. This gentleman has a reputation for veracity, too.

D. J. Post of the Veeder Mfg. Co. stated there are about fifteen Veeder odometers in use on the track, and that the sales book showed many good orders as a result of the show.

Mr. Hayes, representing the New York Belting and Packing Co., was at the Midgley tubular wheel exhibit. The Midgley wheels are fitted with New York Belting and Packing Co.'s tires.

The Patee motor was seen in the Temple exhibit at the north end of the coliseum. Mr. Patee was present to explain the good points of the motor cycle, being aided by the Temple staff of assistants.

Pat Hussey, who is known in the trade as the man with the finest mustache in the world, besides being recognized as a first-class mechanical genius, presided with smiling grace over the Snell Cycle Fitting Co.'s booth.

It was universally conceded that the coliseum is the best lighted and best adapted show building in the United States for automobile and similar shows. This opinion was given by several New Yorkers, which, of course, goes.

Robert M. Jaffray, one of the early bicycle newspaper men, ran over from Canada to look at the automobiles. He reported business as booming in Canada. Mr. Jaffray was fortunate in organizing the bicycle trust of Canada, thereby netting for himself a small fortune, which was added to later when he organized the furniture trust. Mr. Jaffray now has an easy chair with rockers, and is scheming

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to consolidate at least two industries directly connected with the bicycle trade in the United States.

The Avery acetylene automobile searchlight when in full operation competed with the Solar lamp people's stand in the way of illumination.

G. W. Shryor & Co., of Dayton, O., was represented at the show by Mr. Shryor. He placed a considerable order for automobile parts.

Thursday evening the new Milwaukee light delivery wagon made its first appearance on the track and was received with favorable comments from all sides.

Among the many out-of-town people at the show was Oscar Lear, the well known bicycle dealer of Columbus, O. Mr. Lear has taken up automobiles in his bicycle store.

A New Yorker said that Chicago's great variety of uniformly bad weather was a hardship to him, which was only counteracted by the splendid sales made at the show.

Ralph Temple was one of the busiest of the busy. Presiding over a large number of exhibits at the north end of the building, he had little time to spare for anything but business.

Lew C. Black, of San Jose, Cal., one of the best known bicycle dealers in the west, hove into view Thursday and immediately rushed to the coliseum to talk automobiles for the Pacific coast.

G. F. Piper, the millionaire elevator man of Minneapolis, brought a party to the show Thursday and handed his check for \$750 to the Knox Automobile Co. for the immediate shipment of a Knox.

The Truscott boat exhibit, in charge of Charles P. Root, Chicago representative, seemed to interest a continuous crowd all the week. It would seem that boats are in line with automobile exhibits, and interest the same class of people.

E. Grenville Russell, the distinguished looking and altogether suave representative of the Electric Vehicle Co., of Hartford, was at the show most of the week talking to prospective customers and shaking hands with many friends.

The exhibit of H. F. Borbein & Co., consisting of running gears, etc., created a lot of interest and the minute inspection given the exhibit by the public was gratifying to the head of the firm, who was in charge.

The B. F. Goodrich Co., of Akron, O., was more than satisfied with the present results obtained from the show. It obtained much substantial evidence of the merits of its new line of clincher tires for automobiles. B. M. Lovell, manager

of the Chicago branch, was in charge of the exhibit.

The Rev. Alex. Dowie, of faith healing fame, inspected the exhibit and crowd opening night.

President L. S. Dow, of the National Automobile & Electric Co., stated that he was well satisfied with the management of the show and anticipates being on hand at any future event it may supervise.

C. E. Lozier, of Westfield, Mass., and A. L. Garford of the Automobile and Cycle Parts Co., arrived at the show Thursday and both expressed their opinions of the show in highly complimentary terms.

The trade paper men at the show were glad of the opportunity afforded to shake hands with Walter Wardrop, who is again actively interested in the trade as



Holson and His Two-Wheeler.

advertising manager of the Automobile & Cycle Parts Co.

A healthy demand for the metallic bodies made by the Eastman Automobile Co. is reported by Mr. Haynes, who says that several large contracts were closed during the show and that results were entirely satisfactory.

Some quiet fun was poked at an alleged "corn popper" over which Charles E. Weaver presided. In truth, however, the "popper" was the excellent one-piece burner, made by the Kelly Handle Bar Co. for steam vehicles.

George W. Marble of Plymouth, Ind., who received the marble heart from the trust, but did not receive the \$5,000 salary very long after his company's plant had been "gobbled" by the A. B. C., was at the show Wednesday representing the Victorson Varnish Co., of Long Island City. Mr. Marble, who is known as a clever inventor and as being responsible

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for the Marble bicycle and the Plymouth wood rim, would like to make connections with some manufacturer to produce several attractive novelties he wishes to market.

State Senator R. B. Fort took many rides and inspected many vehicles, dug into every corner of the show and found out, evidently, most all that he wanted to know about autos.

T. J. Wetzel, representing the Kirkpatrick Saddle Co., of Springfield, O., has every reason to be pleased with his firm's representation at the show, as many of the motor bicycles were fitted with the Kirkpatrick hammock saddle.

Among the many arrivals from out of town Friday was H. P. Shupe, treasurer of the Benson Automobile Co. of Cleveland. His company recently purchased the entire steam vehicle end of the business of the Eastman company.

Owen H. Fay, of the Porter Storage Co., is among the many who, in expressing satisfaction concerning the sales made, added that the show has opened the way remarkably well for its establishment as an annual Chicago event.

Mr. Dickinson, of the Noera Mfg. Co., of Watertown, Conn., came Wednesday to assist in the care of his firm's exhibit. Mr. Noera, the head of the company, arrived Thursday. The company is making a specialty of automobile lamps.

William Hale Thompson, who recently entered a certain mayoralty race in a mild way, and who is one of Chicago's most energetic business and club men, viewed the show Saturday from the rear seat of the Mobile driven by A. E. Adams.

Charles H. De Witt, manager of the Detroit Riker Automobile Co., spent his time at the show looking for an ideal gasoline motor carriage. Mr. De Witt is impressed with the fact that there is a field in Detroit for a good hydrocarbon carriage.

M. J. Dobler, that persistent and thorough worker, who is well known in the bicycle trade, had charge of the Munger Vehicle Tire Co. exhibit. The Chesterfield of the tire business affably exhibited and lectured on the merits of the Munger non-collapsible.

W. E. Metzger, the Detroit bicycle and automobile man, came to the show with his better three-fourths, and was soon engaged in putting several vehicles through their paces. Mr. Metzger is the Detroit agent for the Mobile and has already booked a large number of orders for immediate delivery. He also acts as Detroit agent for the Losier launches and motors. Mr. Metzger was one of the pioneer bicycle agents who saw further than most of his competitors in regard

to the eventual popularity of the now famous hygienic cushion frame as applied to bicycles.

Mr. Knox enjoyed a puncture Tuesday night, and was busy Wednesday morning trying to find a Chicago man who could repair automobile tire punctures. It seems from what he says, that such an artist is scarce in the vicinity of the coliseum.

R. E. Willard, of Minneapolis, the northwestern agent of the Willard special automobile batteries, manufactured by Sipe & Sigler, Cleveland, had a large number of people interested at his stand whenever he explained the desirable features of the firm's goods.

The Automobile and Cycle Parts Co. received many compliments upon the artistic merits of its space. It has received a great deal of encouragement from the trade and has made many good sales. Mr. Barnes expressed himself thoroughly satisfied with the exhibition.

P. J. Dasey & Co. had a brilliant electrical display in glass tubes Saturday evening, the Dow Jump Spark Coil batteries providing the current. Mr. Dasey had fitted up his stand in a regal way and was always busy distributing literature to many interested people.

One feature of the exhibit which was noteworthy and promising for exhibitors was the close scrutiny given the goods by those who attended. Many show goers declare that this industrial exhibit at the coliseum commanded closer attention than any other exhibit of its kind.

The show management delighted many Chicago automobile owners by the following announcement: "Owners of autos made by any of the exhibitors are invited to leave them in the building to be cared for by attendants, and are also invited to use the track at all times."

Roger B. McMullen, selling agent for the National Automobile and Electric Co., was an interested visitor at the show and found it hard to keep away from the cycle parts stand, a business in which he was a central figure until he sold out to the trust.

Among the visitors at the show Friday were Frank Southard, president of the Toledo Metal Wheel Co., Charles Hall, president of the Automobile & Supply Co., and E. P. Hubbell, president of the National Rubber & Cement Co., all of Toledo and well known in the trade.

The Goodyear endless solid tire for automobiles attracted the attention of nearly all of the automobile manufacturers present. The tire is built especially for heavy work. Mr. Dingman, who was in charge of the exhibit, reported several very large contracts at the show and was

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well satisfied with the trade indications relative to Goodyear goods.

Manager Samuel Wells, of the Daily News, Mrs. Wells and Miss Little were treated to rides and spent considerable time visiting the various exhibits. Mr. Wells expressed himself as highly pleased with the character and scope of the exhibition.

L. M. Wainwright, the old time bicycle manufacturer who made the once famous Ben Hur bicycles, was found with the Automobile & Cycle Parts Co. Mr. Wainwright is now manager of the Indianapolis chain factory, which is one of the factors of the big Garford combination.

Marion Black, the man who tests all the motor bicycles sent out by the E. R. Thomas Motor Co., of Buffalo, was a hard worker, and could always be found at the Thomas stand. He is thoroughly familiar with the motor bicycle and his talks to intending purchasers were very instructive.

Mr. Orr of the Shelby Steel Tube Co., is pleased with the general interest that has been shown in the Shelby tubing in connection with the running gears for automobiles. Mr. Orr is strongly in favor of automobile exhibitions being held in the spring and was well satisfied with the management of the Chicago exhibition.

Conductor Phinney, of the U. S. band, stood for a moment unnoticed behind a couple by the track soon after the rendering of a piece with an anvil chorus and heard the remark passed: "That is an industrious band, anyway." And Mr. Phinney wondered where was the reward for talent.

Mr. Schwinn of Arnold Schwinn & Co., of Chicago, was almost a daily visitor at the show. It is said that he has something very good in the way of a new automobile. Mr. Schwinn was the first Chicago man to experiment with the electric automobile and his pioneer vehicle cost \$10,000 to build.

Mr. McDermid, one of Chicago's piano men, came to the show Tuesday with a letter from Otto Thein, a large pianoforte maker of Bremen, Germany. Mr. Thein wishes to become the German agent for an important American automobile company and gives as financial reference any bank in Germany.

D. J. Post, who needs no introduction east or west among bicycle people, was at the show in the interests of the Veeder odometer, as well as keeping an eye on the welfare of the world famous Veeder cyclometer. Mr. Post recently added to his firm's business a new metal, known as the Veeder metal, which is used for making fine castings for delicate machinery, and the firm is already swamped

with orders for that product. Among the prominent automobile firms that use the Veeder odometer are the De Dion-Bouton, Overman, Mobile, Milwaukee, Daimler, National Electric, St. Louis and several others.

President Starkweather, of the Milwaukee Automobile Co., brought his youthful enthusiasm with his exhibit to Chicago, and declared that Milwaukee made other good things besides beer. Mr. Starkweather is a thoroughly good salesman, and his company is making rapid progress in its field of manufacture.

Mr. Richardson, of the National Good Roads Association, was an interested visitor at the show. He expects favorable results for the good roads movement through the efforts of the automobile people and clubs and expresses the hope that the Good Roads Association may work profitably in connection with the auto clubs.

In order to get acquainted with its visitors and to be able to trace results of interviews, the Woods Motor Vehicle Co. adopted a ticket system for its free ride privileges on the tracks. Tickets were securable at the company's exhibit and the possession of one was necessary to secure a ride in one of the several handsome Woods electrics.

At the Liberty Bell and Veeder stand, M. J. Horton said that the purchase of vehicles at the show reflected with great credit upon his and Mr. Post's sales, for many vehicle buyers called at the bell and odometer stand, inspected the goods and then, returning to the vehicle exhibit specified their carriages to be fitted with Liberty bells and Veeder odometers.

P. A. Lewald, the special salesman of the American Steel & Wire Co., Chicago, presided over the stand of the Staples & Hanford Co., Newburg, N. Y. This firm makes the spring coil seat work, which is used by a large percentage of automobile and carriage manufacturers in the country. The firm exhibits some very fine specimens of carriage seat work.

The Woods Motor Vehicle Co. was perfectly satisfied with the number of the sales that have been made at its well arranged stand. Over thirty vehicles, all of the most recently designed patterns, were sold, and the company was extremely well pleased with the trade attendance from outside of Chicago. Visitors at the Woods booth seemed to take a special interest in and express more than ordinary commendation for the handsome Stanhope with rumble seat. The Woods game trap was also one of the most attractive carriages displayed at the coliseum; it is original and striking in design and is very highly finished.

CHICAGO AUTOMOBILE SHOW.

It is worthy of mention in connection with the Woods landau that it is electrically lighted both inside and out.

Charles E. Miller, the New York automobile parts man who is broadening his lines daily, arrived in Chicago on Monday and yesterday appointed P. J. Dasey & Co. his Chicago representatives. The latter firm will carry a full line of the well-known Miller goods, which include everything that goes into the making of motor bicycles and automobiles.

L. Elliott Brookes, the author of the well-known series of articles published in the Motor Age, on the construction of a gasoline motor and of the complete motor vehicle, spent many hours each day explaining to interested visitors the fine points of the Motor Age motor which is now made and marketed by the Brookes Motor & Parts Co., Omaha building, Chicago.

F. C. Donald, the vice-president of the Automobile Club of Chicago, took advantage of an invitation by the management to put his carriage to its paces on the track and was an almost nightly visitor during the show. Mr. Donald is at the head of the railroad joint passenger traffic association, is a confirmed automobilist and a very pleasant gentleman, with all.

J. M. Evans of the Admiral Lamp Co., of Columbus, O., found the show a profitable venture, for with hardly more than a sample of the newest Admiral lamp for autos with which to work, he placed so much business that he feels more than confident that the eminent success of the Admiral cycle lamp will be repeated in the popularizing of the Admiral automobile lamp.

President Gunther of the Coliseum company and city treasurer-elect, said that while he was busy on campaign work daytime and evening he could not refrain from paying his respects to the show and the coming form of road transportation. Mr. Gunther is enthusiastic over the prospects of the automobile and speaks with undisguised admiration of the Chicago show, believing that it will act as a stimulus to the industry in the west. "The whole thing, vehicles and show, is grand," said he. Having inspected various French vehicles while at the Paris exposition last summer, Mr. Gunther does not hesitate to say that he thinks American vehicles far ahead of those of Europe for everyday practical use and in the matter of lightness and appearance. He enjoyed a long ride on the track Monday evening in a Bachelie carriage. Mr. Gunther, who is, as everyone knows, a great collector of curios, took copies of the Daily Motor Age with him, saying that the paper was worth

keeping as the first daily motor vehicle-paper ever published.

Some visitors searched in vain for the souvenirs which once characterized the bicycle shows. The automobile exhibitors were on hand for business. But the free ride feature amply made up for the loss of the old favorite and aided much more materially in effecting sales. Besides, who would not rather have a ride in a brand new auto than be allowed to wear a brass button or a stick pin?

The Standard Welding Co., of Cleveland, manufacturer of the only seamless rim for automobiles, reported a very satisfactory state of affairs in connection with its exhibit. The men in charge laid especial stress upon the fact that they had the only rim that can be successfully rerolled, thereby forming an absolutely true circle, in case of buckles or irregularities of any kind.

That prosperous looking and altogether contented individual, Ezra Kirk, one of the solid business men of Toledo, arrived at the show Tuesday to watch over his assistant, P. L. Hussey. Just as soon as Mr. Kirk arrived at the building he became the center of an interested group of tradesmen. Mr. Kirk is now mixed up one way or another with nearly all of the important automobile and bicycle manufacturing concerns of Toledo.

Mrs. M. E. Cook, wife of the Chicago agent for the Reading steam carriage, had never in her life been in a steam mobile until the first Friday evening. Saturday evening she was driving a Reading carriage around the track at a gallop and in a manner which would have done credit to the best of the local chauffeurs. She was accompanied a portion of the time by Mrs. Walgren Shaw. The incident speaks well of the Reading and of Chicago women's ability.

Joseph A. Blechner, general representative of the U. S. Ball Bearing Co., arrived at the show from New York Tuesday, and immediately implored the management to find space for his company's goods, which was done; so that Mr. Blechner and his goods were thereafter on exhibition daily. He says that the U. S. company is doing splendidly, and it is only a question of time when the merits of the bearings will create even a larger demand than at present enjoyed.

The Goodyear detachable tire for automobiles sustained the interest of show visitors on account of the fact that instead of being an overgrown bicycle tire it is a brand new style of detachable tire, built especially and exclusively for vehicle wheels, and is puncture proof. The outer casing is divided in the middle of the rim side and the specially construct-

CHICAGO AUTOMOBILE SHOW.

ed side walls are held in place by removable rings bolted to the felly.

B. F. Sweet, the vehicle wheel builder of Fond Du Lac, Wis., arrived at the show Wednesday and found his wheel exhibit in place. Mr. Sweet makes a specialty of a re-inforced detachable hub casing and can supply wheels for either light or heavy vehicles. The wheel is made of well seasoned wood and the inventor declares is practically indestructible.

The Richmond Automobile Co. stated that it has had more call for the Sedgwick engine than it can possibly attend to and supply for thirty days. R. L. Sackett, who is manager of the exhibit, said that if the show had closed Tuesday he would have been more than satisfied with the results obtained. The demand to see the Sedgwick engine in operation was great.

Hotelling Bros., of Chicago, seemed to make a hit with their brazing compound, and, according to George H. Att, superintendent of the company, they received more benefit from their exhibit at this show than from anything else they have heretofore tried. Practical demonstrations with a brazier illustrating the superiority of the compound over borax and other common fluxes retained the attention of the mechanically inclined.

One of the incidents of the Chicago show was the service of an injunction, restraining the management from per-

mitting the exhibition of an alleged infringement on certain patents owned by a man named Dobson, and alleged to be incorporated in the engine shown by Tucker & Co., of Urbana, O. The principals spent the greater part of the week in court but in the end the judge permitted the engine to be exhibited, being unable to decide at the time, the questions at issue. Dodson was once in the cycle trade.

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A \$20,000 company has been organized to establish mail and passenger automobile lines between Montpelier, Vt., Hinsdale, N. H., and Northfield, Mass.

A letter from Toledo says that the Kirk Mfg. Co. has lately shipped 250 machines to Yokohama, Japan, beside large orders to other countries. Domestic shipments include five cars to Boston, five to Los Angeles and two to Toronto.

Colonel Max Fleischmann, of Cincinnati, has the racing fever. Encouraged by the prominence given the eastern users of racing automobiles he has ordered one built by the Automobile Co. of America and has sent a man east to stay at the factory until the machine is completed. He hopes to receive it before the month closes. The owner says he intends to make a trip in the new vehicle from Cincinnati to New York and to take part in the racing events scheduled for the summer.





FOR AND ABOUT AUTOMOBILE CLUB MEN



NEW YORK, March 30.—The Law Committee of the Automobile Club of America is using every effort to notify the various ferry companies of the provisions of the new gasoline law that chauffeurs may at once reap its benefits.

As a matter of fact all the New York ferries but the Union line to Brooklyn, and the Communipaw line to New Jersey, the latter absolutely unimportant to pleasure vehicles, now carry motor vehicles using gasoline either as a fuel or a direct motive power.

The Erie line has established special rules. In case of a steam vehicle the rules require the gasoline flame to be extinguished and enough head of steam accumulated beforehand to carry the vehicle on and off the boat. In the case of gasoline vehicles the motor must be dead. In both cases the motor vehicles must be the last to go on the ferry boat. These reasonable rules are likely to prevail on all ferry boats.



GRAND OPENING IN PHILLY

Philadelphia, April 1.—Saturday, April 13, has been designated by a joint committee of the Automobile Club of Philadelphia and the Pennsylvania Automobile Club as the day upon which the automobile season hereabouts is to officially "open." It is proposed to inaugurate the season with a monster run, in which the owner of every self-propelled pleasure vehicle in the city has been invited to participate. Last season's comparatively phenomenal turnout is expected to be at least doubled. This means that between 150 and 175 vehicles will be in line.

All the details were settled at a meeting of the joint committee held Tuesday night, and it was decided that in the event of unfavorable weather conditions the affair should be postponed until the following Saturday, April 20.

The parade is to start from Broad and Sansom streets at 3 p. m., the route being as follows: South on Broad street to Washington; "countermarch" north on Broad to Diamond; west on Diamond to the park; down Dairy hill to the East

River drive; thence to Green street park entrance; thence via Twenty-second, Chestnut and Twenty-first to Locust and Broad streets.

The affair will be managed by Marshal John I. Unkle, A. C. P., assisted by Leon Goodman, P. A. C. There will be six divisions, captained respectively by: First, H. W. Wardin, A. C. P.; second, H. P. Feister, P. A. C.; third, Frank S. Lewin, A. C. P.; fourth, N. H. Hinchman, P. A. C.; fifth, J. Maxwell Bullock, A. C. P.; sixth, R. P. McCurdy, P. A. C.



SKILL IN MOTOCYCLE RACING

S. F. Edge, one of England's pioneer and foremost motor cycle riders and racers, says that skill in the handling of a motor machine counts for everything in a contest between evenly matched cycles and that such races are not mere hippodromes by any means.

When recently asked round what interest in such racing would center since it did not possess the element of physical strength and skill which gives vitality to bicycle racing, he answered:

"Round what will give all the interest to those most closely concerned, and to those who understand the skill absolutely necessary to the preparation of a machine for such competitions; round the care in adjustment and the skill in driving. Why, if you miss one explosion with such equally matched tricycles, your opponent will pass you at once, while skill in driving is everything. When Mr. Jarrott and I were competing against each other on identical machines, whichever missed one explosion during a race lost. Everything must be attuned to concert pitch—sparkling apparatus, commutator, lubrication and carburation. Why, do you know," said the expert, in most earnest tones,—"do you know that every time you strike the curve on a banked track your carburation alters?"

"With surface carbureters?" was suggested.

"Yes, with surface carbureters; but then you get the best racing results with them. I tell you your hand must always be on the air lever; you must feel intuitively just what your engine wants at the

FOR AND ABOUT CLUB MEN.

moment, for the carburation necessary will alter with the inclination of the plane on which you are running, with sun and shade, as you leave one for the other, and with every cement section that stands proud of its fellow. I tell you, it's tricky work—very.

"It's a curious thing," continued Mr. Edge, "but motor tricycles with surface carbureters perform best on a bright day, at the seaside."

LARGE A. C. A. CLUB RUN

New York, April 1.—The Automobile Club of America held a run Saturday to the Westchester Country Club. Nineteen vehicles participated, carrying thirty members and twelve machinists.

Club members in the run who drove their own machines were: David Morris and District Attorney Train, F. C. Cravan and Mr. Bell, A. Ward Chamberlain, G. B. Goldsmidt, Dr. Baruch, A. C. Bostwick, Dr. E. C. Chamberlin, S. H. Tyng, William Tracy, W. E. Buzby, O. L. Richard, Jefferson Seligman, W. C. Scarritt, C. W. Little, Whitney Lyon, G. M. Gill, of Baltimore, W. L. Schiff, C. J. Field and F. E. Crane, Percy Owen.

The route taken was via Fifth avenue, Jerome avenue, Bronx park and the Pelham Bay road.

C. J. Field had out his new De Dion racer and A. C. Bostwick pulled out after him for a brush. They finally became separated in Pelham park before they had made a satisfactory trial.

TOLL ROAD OWNERS SQUEAL

There is trouble in New York state over a bill that has been introduced into the legislature at Albany by Senator Horace White, providing that the toll for automobiles on the Cicero plank road shall be ten cents every ten miles, or the same as for other vehicles. The owners of other toll roads in the vicinity have raised a howl and say that their roads should be included in the bill. They say it is the rankest kind of special legislation.

CINCINNATI ORGANIZES

The Automobile Club of Cincinnati has been formed. A meeting was held at the Business Men's Club last week and the following signed the roll: Rufus King, Jr.; Reuben A. Holden, Jr.; Dr. Leroy S. Colter, Stanley M. Ramsey, T. C. Meadows, Howard S. Rodgers, Frank H. Miller and Fred Strenger.

Colonel Max Fleischmann, Reuben A. Holden, Jr., Howard S. Rodgers, T. C. Meadows and Dr. Leroy S. Colter, who

were elected governors, will hold a meeting this week for the election of officers.

The constitution states as the objects of the club the promotion of a social organization or club composed in a whole or in part of persons owning self-propelled pleasure vehicles for personal or private use; to afford a means of recording the experiences of members and others using motor vehicles or automobiles; to promote original investigation in the development of motor carriages; to co-operate in securing rational legislation and the formation of proper rules and regulations governing the use of automobiles in the city and country; to protect the interests of owners and users of automobiles against unjust or unreasonable legislation, and to maintain the lawful rights and privileges of owners or users of all forms of self-propelling pleasure vehicles; the encouragement and development in its vicinity of the automobile; to promote and encourage in all ways the construction and maintenance of good roads and the improvement of existing highways, and generally to maintain a social club devoted to automobilism.

HORSEMEN IN WAR PAINT

The members of the Flower City Driving Club, of Rochester, N. Y., have shown their teeth to owners of automobiles. At a meeting held last week the following was adopted:

The executive committee of the Flower City Driving Club, representing a club of some 600 members, in committee assembled,

Resolved, That the club strongly objects to the passage of senate bill No. 861, as relates to the running of automobiles on speedways already created, or that may hereafter be created; and also as it relates to prohibiting local authorities from limiting by ordinance the speed of automobiles on public thoroughfares.

The secretary is hereby requested to send copies of these resolutions to the Monroe county senator and assemblymen, and also to supply copies for the daily press.

A similar resolution was recently was recently adopted by the Road Drivers' Club, of New York.

AUTO BILL PASSES HOUSE

New York, March 26.—While a representative of this paper sat in the office of G. F. Chamberlin, of the law committee of the Automobile Club of America, this afternoon inquiring as to the status of the speed bill at Albany, a long distance telephone message arrived announcing that after a bitter fight it had

passed the assembly by a majority of four. Mr. Chamberlin seemed confident that a victory would also be won in the senate.

This bill is one of the most important in the history of automobile legislation. The act is an amendment to the highway act. Apart from the minor features of speed and road conduct regulation it embraces two victories for the automobile of inestimable value.

In the first place, it declares especially in so many words that the automobile is to be regarded as a carriage in the eyes of the law and that all statutes previously passed referring to carriages refer also to automobiles.

In the second place, despite the effort of the park commissioners to defeat the paragraph, it provides that all highways and parkways not especially set apart to certain classes of vehicles—such as the speedway for trotting and the cycle path for cycling—shall be open to all carriages, which now legally by this statute includes automobiles.

So it is that if this bill passes the senate all public parks will be open to motor carriages.

Local authorities and boards of supervisors by this bill are prohibited from passing any speed regulations restricting motor vehicles to a slower gait than eight miles an hour in built-up localities and fifteen miles an hour in the open country. It must not be understood that automobiles are restricted to these speeds throughout the state. In fact, the speed is unlimited except in those cities and districts which have or shall pass speed restrictions.

The reasonable suggestions of the A. C. A. as to chauffeurs giving due warning of their approach and stopping on signal were embraced in this act, which also provides for carrying lamps at night and horns or bells by day.

FAST HILL CLIMBING

The Rothschild hill climbing cup race which occurred at Nice, France, March 12, was notable because of the excellent speed made by the competing machines. The course was over 7,800 meters long and presented on an average an 8 per cent grade. Prince Lubecki won in 11 minutes, 29 seconds on a high powered German vehicle. Both the start and the finish were on decided up-grades. The gait struck by the contestants was over 25 miles per hour.

A SPEEDY FIFTY MILES

George F. Chamberlin, last year's president of the Automobile Club of America, completed a remarkable 50-mile road trial

last week in faster time than the American road record of A. L. Riker of 2:03:30 and made by him when he won the A. C. A. road race on Long Island last April. Mr. Riker's record being officially timed and over a measured course, still stands, of course, though the integrity of Mr. Chamberlin's statements cannot be questioned.

Mr. Chamberlin's vehicle was a Stanhope phaeton Gasmobile. It had a rumble behind and carried three persons, whose aggregate weight was 570 pounds. Mr. Chamberlin is sojourning at Lakewood, N. J., and the run was made to Barnegat and return, an exact distance, as registered by Mr. Chamberlin's Veeder odometer, of fifty miles. The road was fair, with two miles of sand and no grade over five per cent.

In spite of a strong head wind one way the time for the round trip of fifty miles was 1 hour 58 minutes, without deducting three minutes of stops to inquire the way, an average of twenty-six and one-half miles an hour.

For a measured two-mile stretch of the way the speed was thirty-one and one-half miles an hour. Mr. Chamberlin had to slow down in passing through three villages.

The many automobile exhibitions which were held in various sections of Germany last year resulted in the formation of over thirty automobile clubs, nearly all of which are affiliated with the Automobile Club of Germany.

During 1900 twenty-five important automobile races were run in Germany. The most important one was that from Berlin to Aix-la-Chapelle, which was characterized by the great number of motorcycles in competition with larger vehicles and which showed remarkable comparative results in the matter of long distance speed.

The Austrian Automobile Club has decided to run a big road race from Vienna to Budapest. It will be divided into two sections, one of which will contain vehicles of several types classified as usual. The other section is open to all vehicles of all types, which are subject to sale within eight days after the finish at prices named at the start.

The Automobile Club of Great Britain has decided upon four events for this year. The first will be the London-Edinburgh-London, 1,000 mile race, whose real distance is 1,100 miles. The second is a 100-mile open race, the third a 100-mile race for electric, and the fourth is a demonstration of automobile driving before the local authorities of every county.



NEWS OF THE MOTOR INDUSTRY



FOUR CLASSES will comprise the list of vehicles which may enter the June trials of motor vehicles for heavy traffic conducted under the auspices of the Liverpool Self-Propelled Traffic Association, which is the local center of the Automobile Club of Great Britain.

E. Shrapnell Smith, honorary secretary of the Liverpool association writes that entry blanks are now ready for issuance to those intending to enter. Copies of the complete conditions of the trials may be obtained from him or by addressing this paper.

The program for the trials for this year is as follows:

- June 3—Hill climbing at Everton Brow; manoeuvring at Prince's dock.
- June 4—Liverpool to Manchester.
- June 5—Manchester to Liverpool.
- June 6—Liverpool to Blackburn.
- June 7—Blackburn to Liverpool.

The four classes into which vehicles eligible for competition have been divided are as follows:

Class	A	B	C	D
Load	1½ tons	5 tons	5 tons	4 tons
Maximum tare	2 tons	3 tons	No limit	No limit
Min. platform area	45 sq. ft.	75 sq. ft.	95 sq. ft.	No limit
Minimum width driving tires	3 inches	5 inches	6 inches	6 inches
Speed per hr.	5 miles	5 miles	5 miles	No test

Such items as primary cost and cost of operation, control, efficiency in working, construction and design, etc., will be the basis of judging upon the different vehicles tested. Steam, hydrocarbon and electric vehicles are admitted.

DURYEA WANTS A HOME

Charles E. Duryea is trying to interest Peoria people in his automobile business. He has written a letter to Robert M. Orr, the city clerk, in which he tells of his progress up to date and then says:

"We are now looking for a location and my interest in Peoria leads me to attempt to utilize the old Rouse-Hazard plant which is standing idle at present. I spent last week in Peoria looking over the ground and meeting with considerable encouragement. I feel, however, that the city council should recognize this matter

in a substantial manner and I have already presented the facts to Mayor Lynch, Aldermen Case, Bartholomew, Kasjens and Gorman, who have expressed themselves favorably toward it. I therefore write this letter to get the matter before the council and trust you will kindly present it and that it will receive favorable action."

Among the people who are at present interested with Mr. Duryea are Charles R. Otis, the originator of the Otis elevators; Patrick Farrelly, vice-president and general manager of the American News Co.; Gen. B. F. Tracy, Harrison's secretary of the navy, and Theo. B. Meade, of R. Hoe & Co., printing press manufacturers.

NEW READING AGENCY

The Philadelphia agency for the Reading steam vehicle, manufactured by the Steam Vehicle Co. of America, was last week secured by Lit Bros., who own one of Philadelphia's largest department stores. B. J. Munchweller, an erstwhile cycle department manager, has been placed in charge of the automobile annex.

BRUSSELS AUTOMOBILE SHOW

Brussels, Belgium, March 20.—The automobile show of Brussels opened auspiciously Saturday evening. Over 6,000 persons were in attendance and the show looked a success from the start. There has been a steady attendance during the week, although the record of the opening has not been equalled.

All of the most important automobile concerns in Belgium are exhibiting, there being seventy exhibitors altogether, these including a few cycle makers.

Hydro-carbon vehicles predominate, there being very few electric shown and no steam carriages except those of one American firm, the Locomobile Co. of America. Of the half-dozen kinds of motor bicycles displayed the Minerva creates the most attention.

Although the steam carriage is an exception here it is rapidly catching on and

it is probable that machines of American manufacture of this type will be copied before long.

The Brussels show is patronized by Prince Albert and the best classes.

HARD PROBLEM TO PROBE

Following the lead of the Illinois Electric Vehicle Transportation Co. the New England Electric Vehicle & Transportation Co. has voted to go out of business. The opinion was freely expressed at the Chicago show last week that there is something more behind these movements than the mere loss of money so far suffered. There are many who believe that if the vehicles are withdrawn at all it will be temporarily. The Chicago company has received enough proxies from stockholders to put the decision of the directors into effect at the meeting this week.

SYRACUSE MAKERS BUSY

Syracuse, N. Y., April 1.—The Century Motor Vehicle Co. of this city has advanced the price of its steam carriage No. 1 to \$900. This company is having a large sale and the demand for carriages is so large that it is doubtful whether the company will have an exhibit at the Pan-American, as was intended. The reason for this is that it is the policy of the company to supply the customers as rapidly as possible.

The Stearns Steam Carriage Co. is making a steam delivery wagon for the Pan-American. Both this company and the Stearns Automobile Co. will have large exhibits at the exposition. Both companies are now making carriages for sale and the first shipments will be made in a short time.

CYCLISTS TO HANDLE AUTOS

New York, March 30.—Not only among the officials, mechanics and salesmen of many of the automobile companies are faces and names familiar to the bicycle industry, but the cycle racing veterans are very much in evidence in the motor vehicle trade.

Billy Murphy has charge of Howard Gould's automobile stable on Long Island. Billy Taxis demonstrates Grout Bros.' New Home for H. B. Hart of Philadelphia, and Bob McCurdy races Gasomobiles around the Quaker City, a Philadelphia-Atlantic City record being his latest feat.

Arthur Gardiner is with the Chicago Motor Vehicle Co. Will R. Pitman is interested in the Hefelfinger motor tri-

cycle at Hoboken, N. J. Fred Nagel is a mechanical expert for the Automobile Co. of America at Marlon, N. J.

Oscar Hedstrom will have the mechanical supervision of the new motor tricycle the Hendee Mfg. Co. will put out the coming season from its Springfield, Mass., factory. Charles T. Henshaw has been selling E. R. Thomas motor bicycles this winter, but will later join the Hendee Mfg. Co.'s forces. "Lady" Callahan is connected with the Orient branch at Buffalo, and "Eddie" Bald will likely establish an automobile agency at Buffalo.

NEW TIRE FACTORY

Milwaukee, March 30.—A rubber factory is to be established in La Crosse, Wis., and no less than 100 men will be employed at the start. Automobile and bicycle tires will be the main product. It is said that a Boston concern is back of the deal, but in addition, considerable local money will be invested. Among the local people interested are S. Y. Hyde, Republican candidate for mayor, Col. F. A. Copeland, and ex-Mayor A. Hirschheimer. Those interested have several sites in view and a selection will be made within the next ten days.

IN THE CIRCUS AT LAST

Forepaugh's circus, which opens in the East in a few weeks, has a new "thriller" in which an automobile plays an important part. Charles Kirkpatrick, who has gained fame and shekels by his step riding performances on a bicycle, has signed with the show for an act which will prove one of the features of the many ringed exhibition.

According to the "modest" press agent, Kirkpatrick, "standing on his single limb in an ordinary automobile, with his hand on the lever, will plunge down an inclined plane 160 feet in length. The plane is hardly a foot wider than the automobile and the slightest swerving of the vehicle will hurl Kirkpatrick to certain death." The top of the plane will be 80 feet, with an incline of 45 degrees. There will be no rails at the sides to keep the machine from leaving the pathway.

FOUR WISH TO PURCHASE

Mrs. W. B. Austin, of Woodstock, Ill., writes as follows: "I wish to buy a two-seated gasoline or steam automobile adapted to country touring. Will you kindly ask some of the makers to mail me pictures and prices of their double-seated automobiles?"

This comes from the Johnson C. & S.

Express Co., of 76 Pacific avenue, Chicago: "Will you kindly ask some of the makers who manufacture delivery wagons and heavy trucks to send us catalogues showing their different styles? We have a great many inquiries from agents in all parts of the country who are looking for electric wagons and trucks."

George H. Rickey, of Natalbany, La., sends a picture of a light inspection car for use on railways, and says: "I want a suitable motor. The weight of the car is between fifty and sixty pounds and of the writer about 200 pounds. It would be necessary to have a motor which would run about fifteen miles without recharging. Will you please put me in communication with someone who manufactures one."

J. R. Brandrup, of Mankato, Mich., writes: "Can you inform me where I can get a motor for propelling two bicycles? I use coupler attachments, and, if I could fix my machines so that a motor could be used would deem it a splendid thing."

GOOD SURROUNDINGS SOUGHT

Every manufacturer of automobiles when he desires to have a photograph taken of his vehicle tries to have as attractive a background as possible. Thus we see automobiles in front of the White House and other handsome buildings, but it remained for a New York firm which has recently introduced a new vehicle to photograph its product in front of the impressive Vanderbilt residence on Fifth avenue.

"HALF AND HALF"

An observant man who is evidently an ardent automobilist has written to the New York papers that he has been counting the vehicles passing up and down Broadway, at 103rd street, and finds them about equally divided between horse-drawn vehicles and automobiles. He reasons that the time will soon come when the driving of horses in the downtown district will be prohibited and presents figures to show that the greater part of the filth of cities is due to the use of horses.

THE PRESS BOOMS EDISON

The week has brought forth further press work in the interest of the alleged revolutionary storage battery to be produced by Edison. It is now announced that the new invention will be no larger than a soap box and yet will do more

work than any of the batteries at present on the market. This paper has already alluded to the matter as having been highly colored by the press. There is no reason to believe that Edison has produced, or expects to produce, anything more than a battery of the ordinary kind, with some improvements calculated to add to its efficiency. Electricians place no faith in the tales at present in circulation and regard them as part and parcel of a promotion scheme soon to be sprung on the public.

NEW INCORPORATIONS

Camden, N. J.—Shepherd Engineering & Automobile Co.; capital \$600,000 of which \$1,000 has been paid in.

Cleveland, O.—Benson Automobile Co.; Capital \$10,000; incorporators, H. P. and A. P. Shupe, L. S. Meader, G. T. Warren and W. S. Lister.

New Orleans, La.—Gardner Motor Co., Ltd.; to manufacture engines and deal in automobiles. Officers: Theo. Grunewald, president; Louis Grunewald, secretary; L. S. Gardner, superintendent.

Rochester, N. Y.—Rochester Steam Motor Works; \$100,000. Directors: Fred W. Zimmer, William T. Fox, G. B. W. Watkins, Louis S. Foulkes and Thomas J. Curtin.

The Martius Automobile Works has been started at Superior, Wis.

An automobile and cycle show will take place in Lille, France, April 6 to 21.

The French firm of Panhard & Levasor has recently opened a London branch.

The Maryland Automobile Co., of West-ernport, Pa., has decided to increase its capital stock from \$25,000 to \$50,000.

The post office authorities of Berlin are still experimenting with electric mail wagons and report successful results.

The Houghton Automobile Co., of Newton, Mass., has purchased 22,000 square feet of land on Webster street.

Albert Gerde, of Sacred Heart, Minn., has nearly completed an automobile. He estimates that it has cost him about \$700.

A report comes from Warren, Ohio, that the Ohio Automobile Co., of that city, has booked an order for \$40,000 worth of vehicles.

The Electric Vehicle Co. has been awarded the contract for carrying the mails between the Buffalo post-office and the Pan-American exposition grounds.

The company of M. Charron has delivered to the King of Belgium a new Panhard-Levasor 20-horsepower carriage of the type which was driven by Charron

NEWS OF THE INDUSTRY.

in last year's Gordon-Bennett cup race. It has an aluminum body finished in bright red with royal blue running gear and wheels.

From New York state comes the information that Albany and Troy are forming a company to manufacture automobiles and that the capital will be \$200,000.

The people of Pontiac, Mich., are anxious to induce the Olds Motor Works to locate there. A committee has the matter in charge and is negotiating with the company.

It is announced as a settled fact that Iona, Mich., will have an automobile factory. A company has been formed and it is said that machinery is already being installed.

The adoption of alcohol in explosive motors in Germany is progressing rapidly. One factory has in the last six months made over sixty motors especially for this kind of fuel.

The general sales manager of the Electric Vehicle Co., Mr. Hewey, was seen by a representative of this paper on Monday. He reported several very satisfactory deals made at the Chicago show.

Joseph Goodman, publisher of the Motor World, a veteran and close trade observer, on his return to New York declared that the Chicago show was undoubtedly a great business show.

Dealers in automobiles already feel the need of organization. A movement is on foot in New York to form an association to regulate the price of second-hand machines and to prevent price cutting.

Benjamin Quick has applied to the council of Middletown, N. Y., for a permit to operate a stage line on the streets of that city. He expects to operate vehicles which will carry twenty persons.

J. J. Williams, of Montpelier, Vt., is at work on an automobile which, it is said, will be finished in a few days. He has constructed nearly the whole of it in his own shop, including the gasoline motor.

The Friedman Automobile Co., Chicago, has a lot of 100 machines coming through. Mr. Friedman is understood to have interested a number of men well known on the Board of Trade in his automobile business.

A successful trial trip of the the automobile stage which is to be run at Hempstead, L. I., was made last week, starting from the DeDion factory and running to Coney Island and return. Thirteen of the city fathers enjoyed the outing.

It is announced that all of the stock of the United States Mobile & Power Co., of Worcester, Mass., which was recently offered to the public at fifty cents on the dollar, has been subscribed for and that the books have been closed. The com-

pany has secured a part of the premises at 100 Beacon street and has 8,000 square feet of space at its disposal. The general manager, W. E. Taft, says that about 100 men will be employed.

The American Tractor Co. has been formed at Elizabeth, N. J., with a capital of \$250,000 of which \$50,000 is preferred. The object of the company is to conduct a general carrying business in which the automobile will play a prominent part.

By an unfortunate error in the advertisement of the Auto Supply Co., of 310 Mott avenue, New York City, in the daily and last weekly issue of the Motor Age, we gave the address as 310 Mott street instead of 310 Mott avenue, as it should have been.

A dispatch from Uniontown, Pa., announces that the main building of an automobile factory is being erected there. Three more buildings are to be erected as part of the works and seventy-five men are to be employed. The name of the owner is not given.

Here is a new one. The Royalmobile company is dickering with the people of Ashland, O., for a bonus of \$15,000 and ground for a factory. A committee has been appointed to secure the funds and announces that it expects to be successful and ready to report in a few days.

The Christman Motor & Carriage Co., of San Jose, Cal., is said to be preparing to manufacture vehicles on a large scale. The capital of the company is \$100,000, divided into one dollar shares. Over one-half has been subscribed. The new company expects to place a machine on the market at \$500.

J. Overton Payne is behind a plan to give Philadelphia an automobile bus service on Broad street. One of his representatives recently said that the capital of \$5,000,000 was fully subscribed and that all that now remained to be done was to secure the consent of the council, to which application will be made shortly.

The park board of Baltimore has received four offers from people who want to operate automobiles for the public service in Druid Hill park. Snowdeal & Co. have offered \$200 for the privilege and agreed to spend \$25,000 for equipment. The Schaum Automobile & Motor Co. has offered \$500. So far no action has been taken by the board.

A recent report of the Paris fire department states that the new electric fire engine rendered valuable service at a recent fire on account of the speed with which it reached the flame, and further says that had only the horse drawn engines been depended upon the blaze would have reached an uncontrollable state before they could have been reached.

GOOD LONG DISTANCE MATERIAL

NEW YORK, April 1.—A mere glance at the names of the officers and directors of the United States Long Distance Automobile Co. will be sufficient to give one an idea of the standing the new company is likely to assume in the motor vehicle industry. Some of them



The Long Distance Runabout.

are mechanical engineers and manufacturers of world-wide reputation and others are capitalists equally well known.

Lewis Nixon, the president, is at the head of the great ship building yards at Elizabethport, N. J.; the vice-president, Frederic Martin Lande, is a well known mechanical engineer, and Henry W. Cramp, a director, is one of the ship-building Cramps. The treasurer is George B. Martin, of the Elizabethport ship yards, and Lewis Warfield, John C. Fremont and George W. Childs Drexel, are the other directors.

The company is now installed and at work at the factory formerly occupied by the Manhattan Motor Co., 307 Whiton street, Jersey City, near the Pacific avenue station of the Central rail road of New Jersey. The temporary offices of the company are at 20 Broad street, this city.

The vehicles to be turned out at first are gasoline runabouts, weighing 950 pounds and retailing at \$850. Within a few weeks the company expects to be ready to begin to fill orders.

The claims and description of the vehicle and mechanism set forth in the preliminary catalogue are well worth perusal. They bear the ear marks of mechanical engineers who know whereof they speak. The preliminary catalogue says:

The motor is a water-cooled, single-cylinder, hydro-carbon engine. As

soon as the motor is running, a variable speed automatic governor, which is controlled by a small lever at the side of the carriage, will adjust the speed to any degree and further prevent racing of the engine. This governor automatically admits and shuts off the fuel supply as it is required on a heavy road, up or down hill. The vaporizer feeds automatically, and once set, needs no further adjustment.

The igniter is constructed on the regular "make and break" principle as applied in stationary practice, and is entirely contained in a small piece that is easily removed for inspection. It is fitted with iridium sparking tips and its action is cushioned by a spring which makes it noiseless in operation. The spark for igniting is supplied by closed circuit primary batteries. These batteries on one charge will run the automobile 1,000 miles.

The motor is also equipped with a two-speed and reverse oil-tight gear so arranged that when on ordinary roads, no gearing whatever is in operation; by pushing the lever forward hills up to a grade of 35 per cent can be climbed. The reverse motion is obtained by applying pressure to a foot lever. This foot lever is also a high leverage brake when the carriage is running ahead. There is also a second auxiliary brake on the rear axle.

The gasoline tank contains six gallons, which will run the carriage on country roads 125 miles. The water tank has sufficient radiating surface to run 200 miles without replenishing.

The crank-case is covered and made air-tight, and so arranged on the interior that the crank-shaft and connecting rod are oiled by drains. There is a partial vacuum continually in the crank-case which eliminates the trickling out of the oil through the bearings. There is one main oil cup which feeds all the important parts. This is easy of access and holds sufficient oil for a day's run.

✻

A couple of well imitated Stanlaws girls on the front cover of a neatly executed catalogue attract attention to the line of bicycles and motor bicycles presented this season by Smith & Zimmer, of Minneapolis, Minn. These northwestern jobbers list a full line of models as Smith, S. & Z. Flyer, Zim Special and Racine patterns, the list comprising the entire line of machines made by the Wisconsin Wheel Works, of Racine, Wis., for jobbing; also the Mitchell motor bicycle.



AUTOMOBILE PATENTS AND MECHANICAL TOPICS



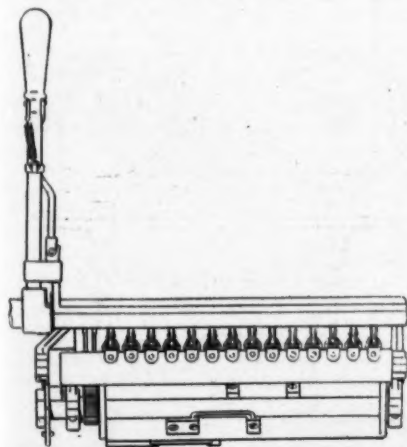
THE CONSTANTLY increasing number of motor vehicle patents, the patentees of many of which are men unaccustomed to securing patents, leads this paper to repeat the warning made previously against patent solicitors which advertise that they accept no pay unless a patent is obtained. These and nearly all of the large firms doing a patent soliciting business on a widely advertised basis rank in a class with advertising medical specialists of the "no cure, no pay" variety. When securing a patent seek the assistance of some reputable local patent attorney.



CONTROLLER FOR ELECTRICS

Letters patent, No. 669,755, dated March 12, 1901, to Carl F. Lundeborg, of Hartford, Conn.

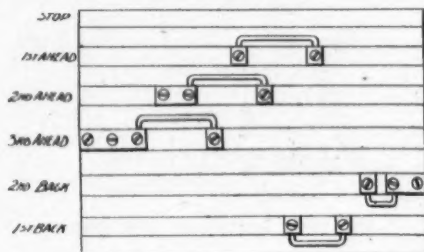
Mr. Lundeborg has two objects in view in the construction of this controller for electric vehicles. One is to provide a device of simple and economical production in which castings and expensive machine work are obviated and the other is to



Rear View, Lundeborg's Controller.

furnish a controlling means which is simple to operate and which avoids frictional movement of contact points.

The controller drum is hexagonal in cross section and is mounted on a shaft supported by brackets under the vehicle seat. On the controller are contacts arranged to afford three forward speeds,



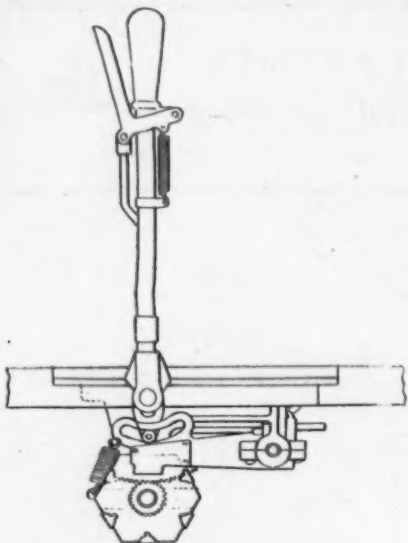
Plan of Lundeborg's Controller Drum.

two reverse and a blank for stopping. The arrangement of the drum contacts are shown in the spread-out view of the drum in the accompanying illustration. Pivoted at the rear of the drum is a finger bar which has a series of fingers any set of whose contact points may engage the corresponding set of contacts on the drum when that respective set is brought into position by the revolution of the drum.

The finger bar carries a frame or arm at one end, which is adapted to engage indents in a star wheel on the end of the drum. This arm is normally held down by a coil spring whose lower end is secured to a projection from one of the drum mounting brackets.

The drum is rotated by a lever which acts through a segment gear and a pinion. On the lever is also a latch lever which engages the finger bar arm by means of a curved slot, or cam way, and pin, this engagement being provided that the latch may be operative at any point of the main lever's position. By drawing the latch lever toward the main lever handle the end of the finger bar arm is raised, thus releasing its engagement with the star wheel and at the same time lifting the finger contacts from the drum contacts. The drum may now be rotated to any desired position and as soon as the latch lever is released the partial engagement of the star wheel with

the finger bar arm will cause the engaging surfaces to slip downward in the adjacent indent to locked engagement with



End View, Lundeborg's Controller.

the finger contacts on the corresponding drum contacts.

The fingers being individually wired in connection with the accumulator to afford the proper utilization of the electrical energy to furnish the different speeds and reverse drives, the manipulation of the one lever thus controls the vehicle.

The contacts on the drum are so arranged that with the drum in the position of stopping, forward movement of the lever will bring the first forward speed contacts into position; further movement, the second forward speed contacts, and still further movement, the third forward speed contacts. The backward movement of the drum past these contacts and the stopping position brings the first or second backward speed contacts into position.

As soon as the liberating latch is pressed all of the finger contacts are raised above their engaging position so that the drum may be turned from one position to the next, or to any forward or back drive position, without frictional engagement of the contacts, the next-to-be-engaged set of which come to position as soon as the latch is released.



ANOTHER TRACTOR

Letters patent No. 670,746, dated March 26, 1901, to Josef Vollmer, of Berlin, Germany.

The desire to produce a motor and trac-

tion outfit which may be placed under the front end of an ordinary carriage as a substitute for the horse, takes many forms at the hands of hundreds of inventors. Josef has the latest scheme and it will doubtless prove a winner. He mounts the entire motor and transmission mechanism within a rectangular box or hood over the traction wheels. The latter are mounted on a balance geared axle and the entire hood, with its wheels, is adapted to be turned relative to the vehicle by being connected to the body by a set of rollers between suitable tracks, which thus form a sort of mammoth roller fifth wheel.

The turning of the tractor is accomplished by a vertical post with a hand wheel on its upper end and a gear on its lower end which meshes with an internal gear-ring on the top plate of the tractor.

One of the desirable features of the device is that the hand wheel and horizontal levers for operating the motor and transmission mechanism change their relative position to the operator whenever the tractor is turned with the steering handle. The driver must thus do a certain amount of calculating constantly in order to keep tab on his controlling devices.

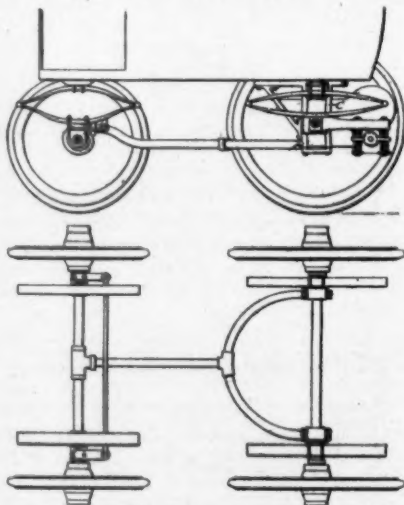
The invention, however, presents one or two original methods of belt transmission regulation.



GIBBS' RUNNING GEAR

Letters patent No. 670,776, dated March 26, 1901, to Lucius T. Gibbs, of Brooklyn, N. Y.

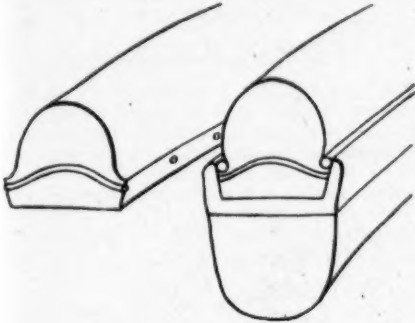
Last April a patent was granted to Mr.



Gibbs' Running Gear.

Gibbs for a running gear in which each end of the front and rear axles was

mounted in a "pedestal" box slidable within a vertical "pedestal" or guideway carried by the vehicle body. The object of the present invention is to combine this pedestal construction with ordinary reach running gear construction, and it is secured by retaining the "ped-



Pfeiffer's Solid Tire.

estal" or guideways at the rear and connecting the front axle directly to the body by means of any suitable set of springs.

Each end of the rear axle is provided with a box which is adapted to slide up and down within a vertical guideway attached to the underside of the body. Springs of usual construction are interposed between these sliding blocks or boxes and the body. If the carriage be an electric the motor may be mounted on an overhanging frame carried by the sliding boxes.

The front axle is connected to the rear of the machine by means of a Y shaped reach whose rear terminations attach to the lower ends of the rigid guideways or "pedestals," but are in nowise connected to the rear axle. The front end of the reach is connected to the front axle by means of a swivel union which permits free vertical movement of the ends of the axle. This construction allows free movement of the front axle, the application of any desired form of front springs, and secures absolutely vertical limitation of the play of the rear axle.

* * *

PFEIFFER'S SOLID TIRE

Letters patent No. 670,544, dated March 26, 1901, to Jacob Pfeiffer, of Akron, O.

The base of the tire is widened at both sides by extensions which form ledges or shoulders along whose tops are adapted to run binding wires. These extensions correspond in depth to the depth of the channelled rim and the entire width of the base of the tire is such that it will fit snugly within the rim.

At regular and frequent intervals the base of the tire is traversed by cross

wires whose extremities are just under the tops of the respective base extensions and whose ends butt against the inner faces of the rim flanges. Each wire is bowed upward in the middle for the double purpose of affording more than the usual amount of rubber underneath to prevent tearing loose of the base of the tire, and of preventing the slipping out of the wire should side strains on the tire tend to roll it upward on one edge until the end of the cross wire were exposed.

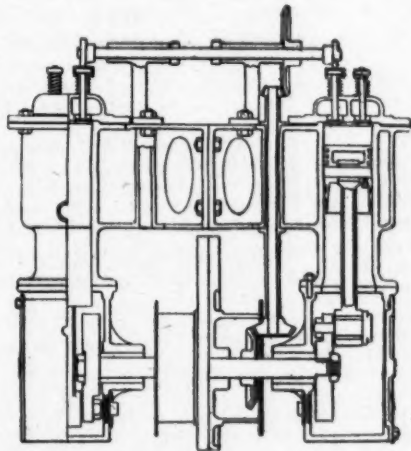
When the tire is on the rim the binding wires along the sides are tightened to draw the top of the extensions down slightly below the edge of the rim. The inventor states that while these binding wires will be sufficient in most cases to hold the tire in position the cross wires afford additional security, if not insurance, against rolling off the tire. Means for tightening the side binding wires are not specified.

* * *

BRITISH TWIN MOTOR

One of the most interesting features of a new English light vehicle built by the Metropolitan Motor Mfg. Co., of London, is the double motor, which is in reality a pair of single motors. The motor outfit, with the belt driving pulleys and the central fly wheel, is shown in the accompanying illustration in section.

The motor consists of two separate vertical cylinders which practically form two distinct motors. Each cylinder is cast in one piece with its water-jacket, and with



The Metropolitan Double Motor.

a projecting flanged bracket. A crank chamber, in which an overhung crank pin terminates the short crank shaft, is bolted to the lower end of each cylinder. The crank chambers are made open at their

external side, but are fitted with cover plates which allow of easy inspection.

The cylinder covers consist of flat plates which are provided with inlet and exhaust valves, and which also receive high-tension ignition plugs and compression relieving cocks. The valves are thus in direct communication with the cylinders, and neither they nor the cylinder covers are water-jacketed. These covers are secured in place upon the cylinders by bolts; the holes through which the bolts pass are slotted in such a way that a kind of bayonet joint results; in this way the covers can be taken off by merely slackening the bolts, by giving the cover a partial twist, and by then lifting it over the heads of the bolts. The brackets upon the two cylinders terminate in machined faces, which allow the two to be bolted together.

A cam shaft is mounted in bearings above the cylinders, and it carries cams which press directly upon the caps of the exhaust valves. The inlet valves are operated automatically in the usual manner. The cam shaft also carries an ignition cam which makes and breaks the primary circuits of the induction coils. This ignition device is mounted about the shaft in such a manner that the time of ignition is variable. The contact maker consists of an arm which rocks about a pin and which is caused to touch a fixed contact at each end of its travel. The cam shaft is driven by two pairs of bevel wheels, through an intermediate vertical shaft, from the crank shaft. In order to render this gear silent, a rawhide wheel is used on the lower end of the vertical shaft and the bevel wheel on the cam shaft is composed of mahogany with a metal boss and with a metal toothed ring. The crank shafts which are driven by the two pistons are coupled together by a central flywheel, on each side of which is fitted a pulley.

Sight-feed lubricators are fitted above the motor, and these lubricate the cylinders and the main bearings; ordinary lubricators are liberally provided wherever necessary for the other moving parts. The pistons are not only turned with grooves for receiving the piston rings but they are grooved at intervals throughout their length; this latter provision is made in order that the grooves, which are also

interconnected by spiral oil ways, may retain the lubricating oil and assist the easy working of the pistons.

The diameter of the cylinders is $3\frac{1}{2}$ inches, and the stroke of the piston is 6 inches. The power of the motor is about 6 to 7 brake horsepower when running at 800 revolutions per minute.

GERMAN AUTO-SLED

The accompanying illustration presents a vehicle which, it is claimed, is the first automobile sledge to be built in Germany. It has been frequently seen during the winter running merrily over the snow covered streets of Nuremberg. It is the

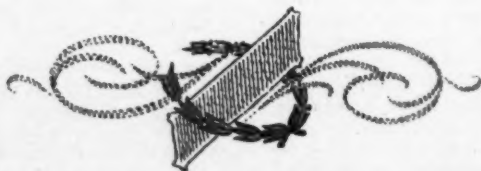


The German Auto-Sledge.

invention of one Herr Maurer and is propelled by a hydrocarbon motor.

The power is transmitted to the ground from the rear axle by means of a large star wheel, one arm of which is visible in the illustration. It is averred that a speed of 25 miles per hour has been obtained and that steering is as readily accomplished as with a wheeled vehicle.

Of the various automobile sledges which have been thus far introduced this is perhaps the neatest of the lot, as most of them have been the result of attempts to build freak machines, whereas this is simply a regular automobile "built over," the wheels being replaced by runners and traction obtained by the application of the rear axle star wheel.



GETTING READY FOR THE PAN-AMERICAN

TRANSMITTED Niagara energy will be used on the Pan-American Exposition grounds for light, heat and power purposes. The amount of electric power contracted for is 5,000 horsepower. This will be generated in the station of the Niagara Falls Power Company at Niagara Falls at a voltage of 2,200, and will pass to the transformer station adjoining the power house, where the voltage will be raised to 22,000 for transmission to Buffalo. In the terminal station on Niagara street, Buffalo, the voltage of the transmitted current will be reduced to 11,000, at which it will pass over the special transmission line to the exposition grounds. At the ground the cables drop into a rheostat for dimming purposes and then go underground to the electricity building. In passing to underground the cables converge to three instead of six, and from underground connection is made with the transformer service station in the General Electric Company's exhibit, where the voltage is still further reduced to 1,800, at which pressure the current is distributed to the many distributing transformers which still further reduce the pressure to 104 volts for use at the lamps.

In the exposition transformer plant there will be 18 air-blast transformers G. E. Form 1. The plant will be equipped with blowers operated by electric motors, and complete with oil switches operated pneumatically. Distributions will be effected by a magnificent line of switch-board panels of blue Vermont marble, having silver trimmings. This plant will control the entire decorative lighting system throughout the grounds.

A patrol and auxiliary plant will be established, the purpose of which will be to care for the necessary all-night lighting for police purposes and to furnish 500 volt and 110 volt service throughout the grounds. The plant will contain apparatus, part of an exhibit by the Westinghouse Electric & Manufacturing Company, and will consist of one 60 cycle alternator, capacity 180 kw; four power generators, 500 volt, direct, capacity 225 kw; two 110 kw, 110 volt, direct current, generators and 15 Brush arc machines. The electrical service will be further augmented by a 600 kw, 60 cycle, alternator in the Westinghouse exhibit in the electricity building.

Of this the Pan-American Exposition will get 5,000 horsepower, which is the entire product of one of the mammoth

generators in the central station of the Niagara Falls Power Company.

There will be few more interesting things at the Exposition than the display that will be made in various ways of the manner in which electricity can be handled and applied to the uses of mankind.

Men and women, youth and age, will find electrical features at the Pan-American Exposition that will command their attention and win their admiration.

Generally speaking, farmers should not be expected to take so much interest in the automobile exhibit at the Pan-American Exposition as people who reside in cities where smooth pavements are at all seasons available for the operation of the horseless carriages, but if the report that comes from Colorado is true it is possible the farmers, who visit the Pan-American, will be more interested than anybody else in the automobile display. The reason of such a possibility is found in the fact that a Colorado man is said to have invented an automobile for the use of farmers. It is a machine which may be operated by gasoline or electricity, and it is adapted to plowing, seeding, cultivating or harvesting. The engine or motor is on the forward or drive wheels, which are joined by a long reach to the smaller rear wheels, over which the seat of the driver is placed. A large transverse bar crosses the reach bar at the center, and to this transverse bar the plow, cultivator or other appliance for farm work may be attached. The entire power of the engine may be applied to one wheel to get it out of a hole or rut, and the auto can be turned in a small compass.

Cyclists who contemplate touring to Buffalo this summer should begin making their preparations.

On the selection of the route depends much of the success of the tour. The best route is not always the shortest. Due consideration must be given to the grades, condition of the roads and side-paths, scenic, historic and other points of interest, and, last but not least, to the hotel accommodations en route.

In touring, one should not be hurried. An average run of fifty miles daily will be enough for pleasure; more can sometimes be made, but the extra time can be better spent in getting off and rolling in the grass once in a while, in a swim in

GETTING READY FOR THE PAN-AMERICAN

some inviting pool or in making detours from the route to inspect an interesting historical point or to enjoy a beautiful view.

Wheelmen who can spend only a short time away from the cares of business are obliged to make the most of their vacation. It should be made a period of recuperation. Were they to go to Buffalo in the ordinary way, the benefit they would receive from their vacation would amount to very little. By combining a bicycle tour with a visit to the Pan-American Exposition they will secure all the benefits of outdoor life and exercise and will arrive in Buffalo refreshed and stimulated by the exercise and will enjoy to the utmost the wonders and beauties of the great Exposition.

With a small party, the expense of touring can be reduced to a minimum. Two dollars per day is a safe estimate. This amount will procure good accommodations in almost any part of the country. Of course, fashionable summer resorts or hotels in large cities are not to be considered. However, in June and September, just before and just after the "season," special rates may be secured

at summer resorts. A small party can always secure adequate accommodations in small towns and out-of-the-way places where low rates prevail, and the itinerary should be planned with this in view.

Some cyclists fly light in the matter of luggage, trusting to chance for such changes as may be necessary while they always have the option of going to bed if unable to obtain dry garments in which to sit up. But the prudent rider, or one who has once suffered from the inconvenience and discomfort of being left without, will take care to provide himself with at least one complete change of undergarments, stockings, neckties, a neat outing shirt, several handkerchiefs and toilet necessities, thus enabling him, at the close of the day, to enjoy a complete change of garments—one of the greatest boons to the hot and dusty wheelman. This amount of luggage can easily be carried on a bicycle. It will also be found a good plan to arrange with friends at home to send by mail or express, on every third or fourth day, to some agreed halting place, a change of clean underwear, the soiled garments being sent home in the same manner.



HAPPENINGS IN THE BICYCLE TRADE

SYRACUSE, N. Y., April 1.—George N. Jordan, of the Olive Wheel Co., returned a couple of days ago from a month's trip in the New England states and the southern part of New York state, in the interest of the Olive. To a representative of this paper he said:

"Business is generally a month behind that of last year on account of the backward spring. From my observations, however, I have no doubt that this will be a banner year. In the New England states our business will be twice what it was last year. The cushion frames are taking at a great rate and we have doubled our sales on racers. In Cortland, Binghamton, Ithaca, Hornellsville, Elmira, and in fact wherever I went, I found the dealers much encouraged and confident of a big year in the bicycle business."

The Olive company will be able to fill orders for Holley motor bicycles by May 1. The machines are made complete at the Syracuse factory for the Holley Motor Co., of Bradford, Pa., and will be shipped from Syracuse. The factory is still running nights and has all the business it can do. Don. M. Smith, general manager, will take a two months' trip to the western coast about June 1. The business in the west is rapidly increasing and a carload has been shipped to Los Angeles during the past week. Another carload will go to Denver, Colo. A letter was received from the branch store at Los Angeles, stating that the manager had been borrowing racers from the Oakland stores, so great was the demand.

Two bicycle openings have taken place in Syracuse during the past week. The new store of the Frontenac Bicycle Co., South Warren street, held an opening last Saturday and sold a large number of machines. The Frontenac is made for the W. A. Doubleday Co., which is practically the same thing as the old Frontenac company. At the new store a line of Hollands are also carried. Music was provided and souvenirs were given away. The opening of Dey Bros.' bicycle department also took place Saturday. Here the Olive is sold as well as the Dey Special and the Syracuse King and Queen. A

line of sundries is also kept. The bicycle department occupies the entire sixth floor of the large department store.

The Syracuse bicycle jobbers at a meeting last week agreed to support the bicycle repair men in their fight with the dry goods men who are cutting prices in repairing cycles. The repair men will meet in a few days to take action as to what course to pursue.

Arrangements are under way for a big race meet at Oneida on Memorial day. It will be promoted by the bicycle dealers and the repair men, who will also upon that day perfect an organization to protect themselves in relation to the sale of bicycles and will adopt a schedule of prices.

The Bretz Cycle Co., of Syracuse, will have a new racer on the market in two weeks, to be known as the New Century Model. It will be made in both the Wolff-American and Holland lines.

GERMAN SHOW IN TROUBLE

The Union of Bicycle Makers of Northern Germany, which is promoting the Hamburg cycle and automobile show for this spring, is in a peck of trouble with the automobile makers who declare that they will not exhibit. The auto makers are not against the show nor the town it is to be held in, but simply take the ground that there have been so many shows and the expense of each is so great that they cannot afford to continue further in this direction this season. On the other hand the promoters of the Hamburg show are working tooth and nail for its success and one wealthy supporter has said that he will make good any deficit resulting from its holding.

STEARNS AND THE A. B. C.

It is rumored in Syracuse that there is trouble between E. C. Stearns and the American Bicycle Co. In 1899 when Mr. Stearns sold out to the trust he, it is claimed, entered into an agreement not to manufacture bicycles or parts of bicycles again. The agreement was strict

and covered every part of the bicycle business. It included Herbert E. Maslin, who was associated with Mr. Stearns. The A. B. C. people now claim that Mr. Stearns and Mr. Maslin are making bicycles in an indirect manner and have served a formal demand on them that they live up to their agreement to retire from the bicycle business. It is said that suits will be instituted against certain Syracuse concerns to restrain the infringement of rights of the American Bicycle Co.

THEY HAD NEVER MET

A most remarkable incident occurred at the Chicago automobile show Monday afternoon. A trade paper man who has been connected with the bicycle trade since the morning it was born, was walking through the exhibition with A. H. Overman, the onetime famous maker of Victor bicycles, and now the head of the Overman Automobile Co., of Chicopee, Mass. As is well known, Mr. Overman was one of the first four manufacturers of bicycles in America, and it is also well known that T. B. Jeffery, of Gormally & Jeffery fame, was also one of this big quartette of pioneer manufacturers.

Mr. Jeffery was busily examining the exhibition as Mr. Overman and the writer came up to him, and in reply to the question, "Of course you know Mr. Jeffery, Mr. Overman?" the Motor Age man was staggered when Mr. Overman replied, "No, I never met him and I would like to meet him very much."

An immediate introduction took place and the two famous manufacturers for the first time grasped hands. It would seem almost impossible that these two men never met before, but Mr. Overman explained in these words, "You see, I was always at home attending to my business, and so was Mr. Jeffery, hence we never met."

POOR ROADS, POOR BUSINESS

Salt Lake City, Utah, March 20.—Summer weather has come once more, but the greater interest that is displayed in the bicycle about this time every year by the general public seems to be wanting. A few struggling riders there are of course, but most of these are messenger boys. Very few ladies are seen on bicycles, and the dealers have put in but half the number of machines that were held in stock last year. A stranger might ask the cause why such a great change in this city which at one time was practically awheel, but the resident well knows the reason.

The city officials are probably four hundred years behind the times in good

roads legislation. Laws and city ordinances have been enacted and passed prohibiting all wheelmen from riding on the sidewalks, and it is impossible to ride in the roads until the latter part of May, and then the dust is so deep that it becomes more of a torment than a pleasure to ride.

A natural consequence has followed, which not only will decrease the number of wheelmen by hundreds but also prove a disastrous stroke to the general interests of the bicycle business. Many of the wheelmen are trying to dispose of their machines at cheap prices, which affects the trade, and whereas last year several hundred cycles were sold by the various dealers, up to the same time this year it is safe to state that fifty machines will cover the limit so far.

A dealer in bicycles was asked the other day why he and other dealers did not help the wheelmen last fall in having the present bicycle ordinance defeated and so changed that wheelmen would be allowed to ride on the sidewalks during the winter months. His answer was that he did not believe that the sidewalk should be used by wheelmen, and that if they could not ride on the roads in the winter they should put up their machines. It would be better for this man and all others like him to get out of the bicycle business as fast as they can, as they are the kind which fail.

There has been little or no work in the repair shops all winter because of the absence of the bicycle in use.

HIGH-GRADE CASH SALES

Buffalo, April 1.—During the past few days the local cycle stores have taken on an air of activity unknown to the Buffalo trade since the good old days of '96 and '97. Throughout the entire days and every evening the different salesrooms are thronged with visitors examining the new goods and getting data with which to guide them in the selection of new mounts.

Little or no inquiry is being made for the cheaper grades. Everybody seems to want the best that is to be had and price is about the least thing considered. The cushion frame and chainless patterns are the most sought. The Pierce company is having a tremendous call for its cushion frame chainless and a large sale of its standard chain patterns. Everybody is doing business and once again the dealer goes about with that happy expression upon his countenance.

One of the most noticeable features of the early spring trade is the comparatively large amount of cash business that is being transacted. A goodly proportion of the buyers up to date have paid cash

CYCLE TRADE HAPPENINGS.

for their purchases, while the other portion has taken advantage of the various credit terms offered which, commercially speaking, amounts to practically cash payment, as the strictly legitimate traders require one-third down and from sixty to ninety days on the balance.

The long time payment plans have been tabooed by the general trade, which has always frowned upon the system, and the Buffalo populace, with whom it was popular two years ago when hundreds bought bicycles under one or the other of the various plans, seems to have grown out of the fad, for thus far this year comparatively few contracts of this character have been made—which is considered as further evidence of a return of cycle prosperity.



ALL HAIL THE MOTOR CYCLE

A traveling man who is covering New York state in the interest of a motor bicycle said last week:

"I am surprised at the remarkable interest displayed in the motor bicycle. In every town I have visited thus far the people have gathered by the score to watch the operation of my machine. In several cities the stores of the agents with whom I was negotiating were surrounded by hundreds of people anxious to know more about the machine, and in several cases where the agent ordered a single motor bicycle it was sold to a rider before I had left the town.

"Among those who have taken agencies is R. H. Robe, of Albany, who is well-known in the cycle trade. He has had assemblymen and other state officials riding the motor bicycle in all kinds of weather and made many sales in consequence. No matter how prejudiced a man is against the motor cycle, when he once rides one he becomes an enthusiast, and it is only a matter of a few months before they will be in general use all over the country."



SOUDAN AFFAIRS

The trustee of the estate of the Soudan Mfg. Co., of Elkhart, Ind., in bankruptcy, has applied to the court for permission to sell all of the assets. The petition will be heard on April 10 and all claims not already allowed will be considered at the same meeting.



LIKE ITS NEW FORM

Numerous letters have come to the office of this paper during the last week each speaking in high terms of the improved form and broadened scope of the Cycle Age. Below are samples:

B. F. Goodrich Co.—Your journal in its new form is a very neat and tastily printed magazine, and as it combines both cycle and automobile news and information in a condensed form it is certainly very acceptable in its new setting.

W. W. Darnell, East Radford, Va.—I think that the Cycle Age in its present form is a most valuable and interesting publication. I wish you abundant success.

T. H. Bolte, Kearney, Neb.—The consolidation of cycle and automobile news in the Cycle Age is a strictly up-to-date move as the two industries are so closely related to each other. I think your move will have a tendency to hold them together—as they rightly belong.

Edward Spring & Son, Utica, N. Y.—We think that with the improvement made in the last issue of the Cycle Age you have made it the best journal of the kind in the country.

C. P. Brainard & Co., Devils Lake, N. D.—We have received the Cycle Age in its new form and like the change very much as it puts it in a more compact form and reminds us of Bearings. We wish you success with the new Cycle Age.



SOUTH AFRICAN PRICES

A correspondent from South Africa says that on account of the active competition of German and English bicycle goods in that region, prices count considerably in the introduction of American products. The cycle business is hardly booming there now on account of the war, but the quiet persistence of the latter and the loss of the spectacular features which characterized its early pyrotechnic period is leading to a gradual resuming of regular business and social pursuits, and, with these, to a strengthening of the bicycle trade.



PRICES MUST NOT BE CUT

Ralph D. Webster, the well known sales manager of the Eclipse Mfg. Co., arrived at the Chicago show on Tuesday and was soon in conference with a large number of jobbers. In order to carry out its promises to the trade in regard to the selling price of the Morrow coaster brake, the Eclipse Mfg. Co. this week obtained an injunction against a Buffalo concern, and the court granted a temporary order of restraint, so that the aforesaid Buffalo jobber is prohibited from selling Morrow coaster brakes until the case is heard. This particular jobber violated his agreement with the Eclipse people, and after warning, again committed a breach of good faith; so the law was promptly in-

voked with at least temporary satisfactory results.

The U. S. courts have very rightly held that the manufacturer of a patented article have a right under their patents to establish and maintain prices on their goods. The Eclipse Mfg. Co., alive to every situation promising benefit to the trade, has taken advantage of this ruling of the court. The present injunction is complete and fully restrains the jobber from further sale at any price, thus eliminating this undesirable competition.

The Eclipse company has promised the jobbers that its sales department is to be run this year so as to enable the jobber to make a legitimate profit on the Morrows that they sell, and this action on the part of the company fully confirms the belief that is becoming general that it means to and is in a position to carry out the promise.

It is the universal opinion of the largest and most influential men in the trade that the Eclipse company has, in taking this action, made a move of the utmost importance to the trade, and there is no question that the trade will back the Morrow brake people in their determination to prevent the ruination of the brake business by price cutting.



THE WORD OF BOTH SIDES

The litigation and dispute over the ownership of patents and rights for the manufacture and marketing of puncture compound is assuming an interesting position. Those interested in the matter from the two sides of the case are up in arms.

Under the date of March 25 this paper received from the G. W. Cole Co., of New York city, the following letter, which presents the Cole view of the subject:

To the Editor:—Our attention has been called to the fact that the Buffalo Specialty Mfg. Co., of Buffalo, manufacturer of the Neverleak tire fluid, is circularizing the trade to the effect that our company and certain other tire fluid manufacturers have acquiesced and acknowledged the rights of the Buffalo Specialty Mfg. Co. in a certain patent known as the "Duryea patent," which it claims gives it a monopoly in the manufacture of tire fluid.

We desire to state that we and our associates have not acquiesced or acknowledged in any way that the said Buffalo Specialty Mfg. Co. has or is entitled to any exclusive monopoly in the manufacture of tire fluid under the said Duryea patent or any other patent, and, on the contrary, we affirm and declare that we have obtained the opinion of our counsel,

Messrs. Steuart & Steuart of New York, assuring us that the said Buffalo Specialty Mfg. Co. has no such rights and that we and our associates are entitled to manufacture and sell tire fluid without fear or hindrance by reason of any such alleged patent rights.

Some two years since the Buffalo Specialty Mfg. Co. brought a suit against W. G. Schack of Buffalo, who was a customer of one of our associates; this suit was based on the Duryea patent and alleged that said Schack infringed the same. Our said attorneys came in and answered this suit and put in a very strong defense, showing the prior state of the art and illustrating by competent witnesses that the said patent was void.

When the testimony on behalf of the defendant was completed and put into the case, the complainants rested and have continued to rest for more than a year. We have notified the complainants that we would be glad to have them put the case on the court calendar and have it tried, but they have failed to bring the case before the court, and have continued to send circulars and letters to the trade notifying them that all infringers would be prosecuted, etc., etc. So far as we know this is the only case that has actually been contested. Several cases have been brought by the Buffalo Specialty Co., which have been permitted to go by default, there being no defense interposed by the defendants. These default decrees the Buffalo Specialty Mfg. Co. has advertised and sent to the trade all over the country.

We have refrained from answering the numerous letters and circulars, which have been sent out by the Buffalo Specialty Mfg. Co., but we have received so many inquiries from our customers, asking whether they are at liberty to proceed with the sale of our tire fluid, that we feel it now to be necessary that we should write this general letter, making a plain statement of the exact situation.

We are prepared to meet the Buffalo Specialty Mfg. Co. in court at the trial of the said case against W. G. Schack at any time that it may elect, and we have held ourselves in this position for more than two years. As defendants we cannot force this case to trial; it rests entirely with the Buffalo Specialty Mfg. Co. to bring the case before the court, and in view of this fact, we regard its threatening letters and circulars as unfair competition in trade.

The Buffalo Specialty Mfg. Co.

CYCLE TRADE HAPPENINGS.

claims also to have some rights in what is known as the "Curlin decoy duck patent." Our attorneys have written us an opinion to the effect that this patent is limited to decoy ducks, and has nothing whatever to do with the use of fluid in tires or other articles. The Buffalo Specialty Mfg. Co. has not instituted suit against us on this patent, though we have invited it to do so.

We would have it distinctly understood that we are in the business to sell as much tire fluid as we may, and we are prepared to meet any litigation that may be instituted by the Buffalo Specialty Mfg. Co. against us in this connection.—Very truly, The G. W. Cole Co.

Under date of April 1 the Buffalo Specialty Mfg. Co., mailed a copy of the judgment and decree granted to it March 23 in the district court for the western district of New York in the suit against W. G. Schack. The judgment granted is as follows:

It is found, ordered, adjudged and decreed that the letters patent granted to said Seth Curlin on said 17th day of June, 1890, issued to him and his assigns, is a good and valuable patent, being the patent referred to in complainants' bill and that said Seth Curlin was the original and first inventor of the improvement described and claimed in said patent; and also that said defendant has infringed upon said patent and upon the exclusive rights of the complainants and especially of the Buffalo Specialty Manufacturing Co., under the same.

And it is further ordered, adjudged and decreed, that the complainants, and especially the Buffalo Specialty Manufacturing Co., recover of the defendant the profits, gains and advantages which the said defendant has received or made, or which has arisen or accrued to him from the said infringement of said patent by the manufacture, use or sale of the improvement described and secured by the said letters patent and the license and privileges thereunder at any and all times since the said 17th day of June, 1890.

And it is further ordered, adjudged and decreed that a perpetual injunction be issued and that the said defendant, his agents, servants and workmen be, and they hereby are, forever restrained and enjoined from making, or selling, or using, or causing to be made or to be sold, or to be used, any tire fluid or compound used or to be used to heal or close vents or punctures in or which may occur to pneumatic tires or other inflatable

articles or any device, mechanism or mechanical contrivances or other things whatsoever made or arranged, or used, according to the complainants' said patent, or differing therefrom only colorably, or by the substitution of more mechanical improvements for the same; and from selling or offering for sale, or causing to be sold, or causing to be offered for sale, any device or contrivance manufactured by said defendant, his agents, servants, or workmen, and from putting into practice or vending said complainants' invention, without license or authority of the complainants, and from or in any wise counterfeiting, imitating, infringing or resembling the same in accordance with the prayer of the complainants' bill herein.

This court decision is now being made the basis of a vigorous Neverleak campaign by the Buffalo company. Yes, things appear interesting.



CHANCE FOR COMPETITION

Now that the A. B. C. has openly avowed its intention of capturing amateur racing men for its mounts, by offering medals for records made in certain competitive events throughout the summer, why should not the independent makers, especially those of the clan of the C. T. P. A., offer a similar or some off-standing inducement to the simon pures and thus help to start in earnest and merrily once more the keen competition between amateurs which in days gone by was one of the strongest factors in an enthusiastic trade.



LAMPS FOR TEN CENTS!

An enterprising New Yorker has placed an acetylene lamp on the market which retails for ten cents. It consists of a small cylinder measuring about six inches long and about one in diameter which is half filled with water. A small cardboard tube holds the carbide. It has a small metal needle burner and is fitted with a reflector two inches in diameter. The novelty has a small catch to hold in the coat lapel and it will undoubtedly sell well for parades. It is marketed by I. Eisenstein of 44 Ann Street, New York.



Charles H. Munger's many friends in the trade journal, cycle, automobile and tire industries will be interested to know that he has just accepted an important position on the advertising department of the Evening News and Sunday News, of Newark, N. J., two of the largest enterprises of their class in the United States.

RETAIL TRADE MISCELLANY

30

Ashton Rea has opened a bicycle repair shop at Coatesville, Pa.

Will Davidson will open a bicycle repair shop at Grand Forks, N. D.

A. J. Jarrell, Shelbyville, Tenn., who handled bicycles is deceased.

A new repair shop has been opened at Ligonier, Ind., by A. J. Grades.

Eskridge, Kas., has a new cycle dealer in the person of George Waugh.

Otto Gudenschwager has opened a cycle store and repair shop at La Crosse, Wis.

Bert Shively has purchased the cycle business of Harry Waldrum, of Hastings, Neb.

A new cycle establishment has been started at Rockland, Me., by Harvey Addison.

Edward Cronk and Russell Wheeler have opened a cycle store on Elm street, Utica, N. Y.

J. M. Galbrait, a bicycle and hardware dealer of Swayzee, Ind., had his stock damaged by fire.

F. M. Blanks, Hardware and bicycle dealer of Trezevant, Tenn., has moved to Greenfield, Tenn.

George Anderson, of South Haven, Mich., has sold his business to Kuhn Bros., of Geneva.

George A. Hill announces that he will open a first-class cycle store and repair shop at Alma, Mich.

Howard Royer & Co., Pittsburg, Pa., are closing out their business; they handle hardware and bicycles.

E. E. Harlan, the well known bicycle and music dealer of Marshalltown, Ia., has sold out his bicycle business.

Grade & Minie have opened a bicycle store and repair shop in the postoffice block at Springfield Center, Mass.

The Belle City Malleable Iron Co., Racine, Wis., was damaged by fire. The damage was covered by insurance.

The San Marcos Mercantile Co., of San Marcos, Texas, has changed its name to the Hutchings & Talmage Hdw. Co.

A receiver has been appointed for the J. A. Horne Mfg. Co., of Collinsville, Conn. They manufacture bicycle sundries.

J. G. Duprez & Co. held an opening at the Opera House, Shelbyville, Ind., the last three days of last week. Moving pictures, souvenirs and a display of new

machines were the features of a highly successful affair.

Wm. K. Woodwell of Jos. Woodwell & Co., wholesale hardware and bicycle dealers of Pittsburg, Pa., is dead.

The following firms have dissolved partnership: Merriman & Campbell, Coggon, Ia.; Case & Taylor, Lyons, Ia.

A. L. Wilson, of Chariton, Io., has leased rooms at Red Oak and opened a store for the sale of cycles and buggies.

The bicycle dealers of Bridgeport, Conn., have agreed among themselves to close their stores at six o'clock every evening.

E. C. Laughlin, successor, to Laughlin & Akers hardware and bicycle dealers, of Fairmont, Ill., has sold out the business.

J. J. Kropff has bought the bicycle stock of Frank Ames of Abilene, Kas., and will continue the business at the same place.

The Pentucket Cycle Co., of Haverhill, Mass., has opened a branch at Newburyport, under the management of L. F. Burke.

Detroit dealers report an extraordinary revival in the interest in cycling. The fever seems to be spreading in all parts of the country.

The business of L. A. Welling & Co., of Battle Creek, Mich., has been sold to Charles G. Currie and C. V. Mills. The new firm will be known as Currie & Mills.

The partnership heretofore existing between William Montrose and Messrs. Smith & Willys of the Elmira Arms Co., has been dissolved, Mr. Montrose retiring.

The following assignments among bicycle dealers have lately been recorded: Geo. B. Brubaker, Akens, Pa.; Lamson Hdw. Co., Rockland, Me.; A. P. Orrick, Canton, Mass.

William Petri, who recently stole a number of cycles, tires and chains from the store of A. H. Keefover, of Los Angeles, Cal., has been captured by the police and has confessed. He is now in jail.

On Tuesday evening of last week a formal opening was held by J. B. Lott & Co., of Anderson, Ind., one of the oldest and most progressive cycle concerns in the state. Over 400 persons registered during the evening and souvenirs ad libitum were presented. A cycle is to be given to the lucky one among those who

were in attendance. The drawing will take place in a day or two.

Chase & Tichnor, of Rockford, Ill., will promote a road race on Decoration day. The Claremont club, of the same city, is considering the promotion of a number of race meets.

Alsten & Goulding, of Worcester, Mass., finding it necessary to have more space, have moved into new quarters at 36 Foster street, where they have about five times as much room as before.

Fred W. Peabody, of Amesbury, Mass., held a successful opening of his store March 28. He showed all the good things he will offer to the cycling public to the accompaniment of an efficient orchestra.

Dealers at Marshalltown, Ia., report that the season's prospects are most encouraging. E. E. Harlan has sold his business to W. F. Redel who will add a repair department and handle the National.

The following changes of ownership of firms who handle bicycles have taken place during the last two weeks: M. A. Jones, to W. A. Smith, Byron, Ill.; E. J. Bauman, to DeGroff & Love, Goodell, Ia.; Sperry & Dolloff, to Sperry & Fox, Chesaning, Mich.; Garner & Crowder, to J. A. Garner, New Sharon, Ia.; Nass & Hass, to J. C. Nass, Atchison, Kans.; A. W. Miles, to A. W. Miles Co.; Livingston, Mont.; W. H. O'Neil, to O'Neil Hdw. & Lumber Co., Deer Lodge, Mont.; D. B. Holton & Son, to Holton & Grey, Braddyville, Ia.; C. F. Crandall, to Brocton Hdw. & Lumber Co., Brocton, N. Y.; Steensland & Iverson, to Iverson & Mill-

er, Hudson, S. D.; O. S. Decker, to Decker & Ferry, Wheaton, Ill.; Beale Bros., to Al Taylor, Mt. Sterling, O.; C. J. Fritz, to Harvey G. Tom, Danville, N. Y.; Stark & Tesch, to Wm. Tesch, Appleton, Wis.; J. Keating & Son, to M. W. Keating & Co., Afton, Ia.; Gregg & Co., merged into the Rowan Hdw. Co., Salisbury, N. C.; S. H. Brown, to H. G. & T. W. Taylor, Simpson, Minn.; Churchman & Coslet, to Bentley, Wagner & Co., Byron, O.; McCollum & Co., to McCollum & Cason, Haskell, Texas.; Westhope & Beauman, to H. E. Westhope, Corning, Ia.

That business has never been so good is the report of the Alabama Bicycle Co., of Birmingham, Ala. Two years ago the company had merely a small repair shop but the business has developed into one of the most important in the state.

Lyons & Co., of Grand Forks, Dak., report that they have never before had as good a business as they are enjoying this season. They have five men at work in their repair shop and are crowded all the time. They attribute the improvement to the fact that a great deal of new paving has been done in their town during the last few months.

The following firms who handled bicycles as a side line have sold out their business. E. R. Barley, Ft. Collins, Colo.; Vitor Mine Supply & Hdw. Co., Victor, Colo.; Geo. D. Grundy & Co., Southampton, N. Y.; Bicycle Elec. Plumbing Co., Tempe, Ariz.; S. Anderson, Clarendon, Texas; A. Cording, Saunemin, Ill.; J. A. Douglas, Grafton, N. D.; Geo. A. Warner, Hope, N. D.

UNITED STATES EXPORTS OF CYCLES AND PARTS

	February—		Eight Mths. Ending February—	
	1900	1901	1899	1900
United Kingdom	\$68,132	\$29,927	\$431,682	\$241,287
France	26,159	20,021	233,849	155,255
Germany	53,436	15,640	635,838	270,075
Other Europe	64,526	60,808	866,725	417,680
British North America	32,214	47,755	242,023	129,447
Central American States and British Honduras	86	1,003	4,004	2,241
Mexico	848	1,776	32,679	18,444
Santo Domingo	14	72	221	216
Cuba	11,962	311	4,340	128,419
Porto Rico	185	.....	1,881	1,796
Other West Indies and Bermuda	2,696	3,390	41,253	34,753
Argentina	14,038	1,204	117,452	129,078
Brazil	1,469	374	44,499	21,199
Colombia	22	.....	4,962	5,881
Other South America	4,186	1,218	34,728	48,893
Chinese Empire	3,231	368	19,082	18,677
British East Indies	9,034	5,286	116,638	83,728
Hongkong	491	.....	4,924	5,455
Japan	17,283	21,098	95,040	143,831
British Australasia	14,024	14,735	188,260	160,386
Hawaii	2,847	.....	24,042	27,429
Philippine Islands	8,304	5,432	430	11,839
Other Asia and Oceania	4,626	3,593	23,965	34,887
Africa	2,737	6,981	120,983	47,561
Other countries .....	.....	.....	576	89
Total	\$342,840	\$240,892	\$3,290,077	\$2,138,546
				\$1,253,862

BUDGET OF BICYCLE INVENTIONS

IN THE issuance of bicycle patents there will be a stretch of from four weeks to four months, during which there will not appear a single patent for a lever movement driven bicycle, and then of a sudden, without warning or reason, they will appear in weekly twos, threes and fours. The condition may be likened to the antics of an erratic long distance rider who sprints every ten or fifteen laps and then loafs again to catch his breath.

AUTOMATIC RIM BRACKET

Letters patent No. 670,473, dated March 26, 1901, to Laverux N. Dyhrberg, of Ashburton, New Zealand.

The rear wheel sprocket is mounted on a free wheel clutch and within the dished front sprocket is a ball clutch ring to which is fixed a short stud. The front and rear clutches operate in opposite directions. To the clutch stud fastens the forward end of a link which attaches at the rear to the brake yoke. This yoke is U shaped and is pivoted on upwardly extending arms which hinge on rear fork tube clips. At the ends of the yoke are brake pads or shoes facing the rear wheel rim.

When the rider pedals ahead the front sprocket over-runs the brake clutch and

sprocket and brake clutch lock together. The latter is thus rotated backward and its stud and link draw the brake yoke forward, causing frictional contact of the brake shoes and rim.

The brake is released by forward pedaling, but as the brake clutch would be apt to be released before the brake were freed, it is obvious that some spring device should be incorporated in the device to independently release the brake after cessation of back pedaling.

HOLLEY'S MOTOR BICYCLE

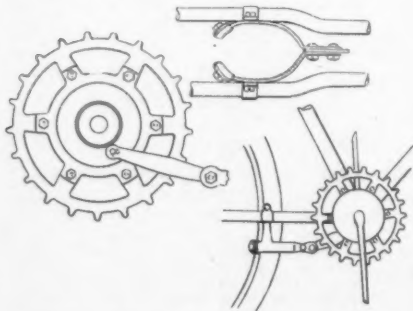
Letters patent No. 670,590, dated March 26, 1901, to George M. Holley, of Bradford, Pa.

Several months ago a design patent was issued to Mr. Holley for the frame used in the motor bicycle which forms the subject of the present mechanical patent.

This patent does not relate specifically to the motor used, but to the built-in relation of the motor crank box and frame, the former replacing the bottom bracket of a bicycle of usual construction. The illustrations present the construction clearly. In order to furnish data for comparison between this patent and others which have been, and doubtless soon will be issued for similar built-in motor machines, the Holley claims are appended:

1. In a motor cycle, the combination with the crank box and the cylinder of an engine, of a cycle frame having a member which is bifurcated at its lower end, the branches of said bifurcated member being arranged on opposite sides of said cylinder and connected at their lower ends with the crank box, substantially as set forth.

2. In a motor cycle, the combination with a cycle frame having a lower front bar, a lower rear fork, a crank box connected on its front and rear sides with the adjacent ends of said front bar and rear fork, and an upright bifurcated brace having its two parts arranged one behind the other and connected with the top of the crank box, of an engine cylinder ar-



Dyhrberg's Automatic Rim Brake.

drives the machine through the rear wheel clutch. When he back pedals the rear clutch over-runs and the front

BICYCLE INVENTIONS.

ranged between the parts of the bifurcated brace and connected with the upper side of the crank box, substantially as set forth.

3. In a motor cycle, the combination with a cycle frame having a lower front bar, a lower rear fork, a crank box connected on its front and rear sides with the adjacent ends of said front bar and rear fork, and an upright bifurcated brace having its two parts arranged one behind the other and connected with the top of the crank box, of an engine cylinder arranged between the parts of the bifurcated brace and connected with the upper side of the crank box, heads secured to opposite sides of the crank box, a crank shaft journaled in bearings in said heads and having its crank arranged in said crank box, a piston arranged in the cylinder and connected with said crank, and an intermediate transmitting mechanism connecting the crank shaft with the driving wheel of the cycle, substantially as set forth.

4. In a motor cycle, the combination with a cycle frame having a lower front bar, a lower rear fork, a crank box connected on its front and rear sides with the adjacent ends of said lower bar and lower fork, and an upright bifurcated brace having its two parts arranged one behind the other and connected with the top of the crank box, of an engine cylinder arranged between the parts of the bi-

furcated brace and connected with the upper side of the crank box, a motor crank shaft journaled in the motor crank box and having its crank connected with the piston in the cylinder, a pedal crank box mounted on the front side of the motor crank box, a pedal crank shaft journaled in the pedal crank box, a transmitting mechanism arranged on one side of the cycle frame and connecting the corresponding ends of the motor crank shaft and the hub of the driving wheel, and another transmitting mechanism arranged on the opposite side of the cycle frame and connecting the corresponding ends of the pedal crank shaft and the hub of the driving wheel, substantially as set forth.

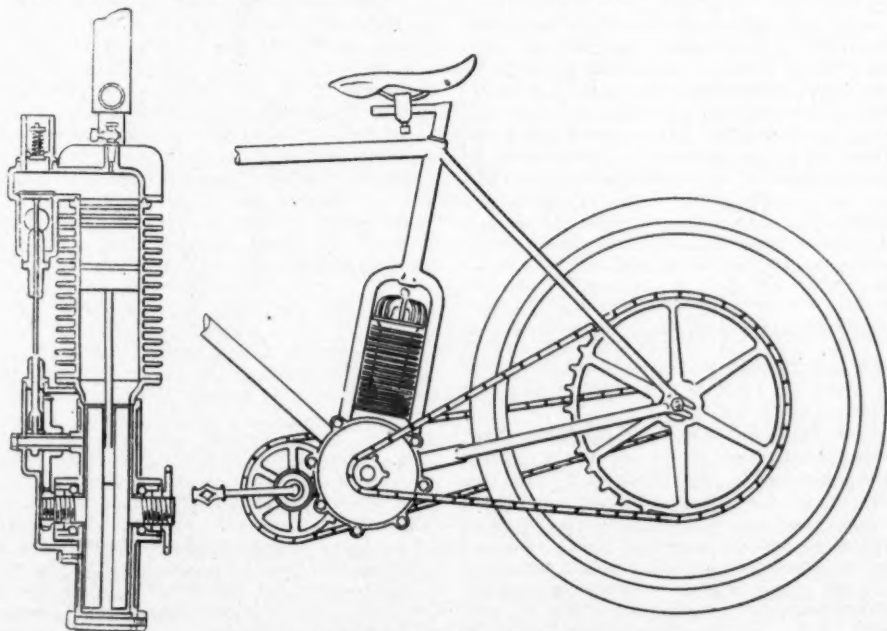


LATTA CONTINUES

Letters patent No. 670,617, dated March 26, 1901, to Emmitt G. Latta, of Friendship, N. Y.

Mr. Latta is one of the oldest and most prolific inventors in the bicycle trade and many of the features of Columbia and other bicycles of past years have been the product of his genius. Recently he has evinced considerable interest in the creation of crank or bottom brackets which do not infringe the claims of the famous Smith-Owen-A. B. C. patent, and the present patent relates to such a bracket.

The bracket is removable from the

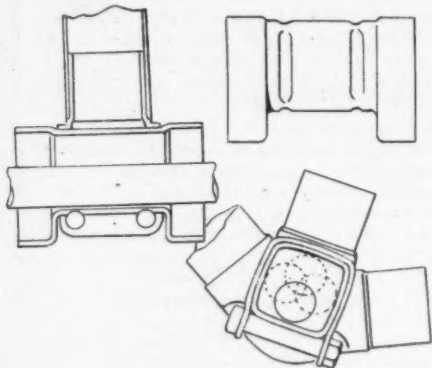


HOLLEY'S MOTOR BICYCLE.

BICYCLE INVENTIONS.

frame and is so constructed that the entire axle bearing set may be assembled before the bracket is interlocked with the frame. Another object is that it furnishes different "drops" or heights of hanger.

The frame yoke comprises a square U-shaped bracket built into the frame with



Latta's Removable Bottom Bracket.

its open side at the bottom and crossed by two binding bolts. This yoke is slightly wider than the diameter of the frame tubes. The bracket shell has two cup-shaped ends into which fit the ball cups, and between which the bracket assumes a square sectional shape. This square portion is eccentric to the end portions and each of its four faces is formed with two cross indents or grooves to fit the surfaces of the cross bolts of the frame yoke.

After the bracket parts have been assembled the bracket is slipped into the yoke, "any side up," and the cross bolts run slipped through into place and tightened, thus drawing the sides of the yoke against the bracket faces and holding the latter securely in position. By altering the position of the bracket in the yoke the axle is given four different positions relative to the frame, this being shown by dotted lines in one of the views of the accompanying illustration.

TILLINGHAST'S DETACHABLE TIRES

Letters patent No. 670,866, dated March 26, 1901, to Pardon W. Tillinghast, of Edgewood, R. I.

In designing this tire Mr. Tillinghast takes advantage of the fact that in a clincher tire the side strains are on one side at a time only, and that a pressure on one tending to disengage that edge of the outer casing exerts an equal pressure on the opposite edge to hold it in place, and he accordingly makes the casing edges dependent upon each other so that both sides must be simultaneously

pressed inward before either can be disengaged from the rim.

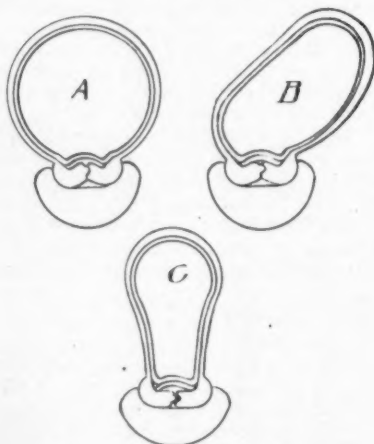
In the accompanying illustrations the view A represents a cross section of the tire when inflated, B the position of the casing under a heavy side strain and C the position the casing must be in before either edge can be removed from the rim.

The beaded edges of the casing hook under a detachable, but non-elastic, annular band which takes the strain of inflation, and the outside edges of the beads are steadied on the edge of the rim in line with the fulcrum edges of the band. The inner edges of the beads interlock by means of a groove in one and a rib on the other. The pivotal interlocking action of the beads is shown in the illustrations. Mr. Tillinghast claims that it is impossible for the casing to become accidentally disengaged from the rim.

MENTIONED BRIEFLY

Letters patent No. 670,608, dated March 26, 1901, to Thomas L. Dennis, of Brooklyn, N. Y. A lever driven bicycle whose transmission means are a pair of straps winding over spring clutches on the rear hub. The gear is adjustable by changing the position of the forward idler rollers over which the straps run to the pedals.

Letters patent No. 670,575, dated March 26, 1901, to John G. Ziegler, of Reading,



Tillinghast's Detachable Tire.

Pa. This patent is for the coaster brake which is marketed as the Wyoma.

Letters patent No. 670,519, dated March 26, 1901, to James P. Scovill, of Chicago. Two piece crank hanger introduced in 1898 by the George L. Thompson Mfg. Co.

Letters patent No. 670,483, dated March 26, 1901, to John F. Pope, of Chicago. Freak spring saddle.



CYCLING SPORT AND PASTIME



PARIS, March 20.—The coming to Europe of no American rider since the days of Zimmerman has begun to create the sensation that has that of the ebony champion Major Taylor; unless it was that of the much boomed Johnny Johnson. In this connection, by the way, the question is frequently asked whether the Major will prove a world beater like Jimmy or a foreign fizzle like Johnnie.

The daily papers give complete chronicles of Taylor's every going and coming. On the streets he is pointed out and a crowd follows him to the Parc des Princes track, where he trains daily at ten o'clock in the morning and at three o'clock in the afternoon.

The major did not reach Paris until after one o'clock in the morning and it was three o'clock before he got to bed, yet he was up at half past six o'clock for a walk. Taylor's early rising hours are commented on as being not at all Parisian.

The American was, of course, taken at once to the Cafe Esperance, the cycling brasserie, where he met Bourritton, Hurit, Bauge, and other great riders and renewed his acquaintance with Gougolz, Lamberjack and others of the annual America-invading brigade.

The first meeting of the French and American champions is amusing. Jacquelin was riding in an automobile by the Cafe Esperance and saw a black man standing in front in a group of riders.

"That's Taylor," he cried, and jumping out ran to greet him.

In five minutes the two champions were the best friends on earth.

"This is strange," said Jacquelin. "I never knew you were so little."

Taylor replied, giving his height and weight.

A tape measure was produced and the men began comparing their measurements.

"You have splendid, big legs," said Taylor.

"But yours are so much prettier," replied Jacquelin with Parisian politeness.

"That may be," responded the major, "but yours have much more strength than mine."

"But suppose yours prove quicker than mine. What then?"

Taylor's first visit to the Parc des Princes was a notable one.

"There was such a big crown on hand I thought there was a race meet on," said the major.

A crowd followed him through the gates and when he appeared on the track the people in the stands arose, took off their hats and cried "Vive Taylor!" A football match was in progress in the oval. The game was stopped and the teams gave the American a hearty "hip-hip-hurrah!" Taylor then rode around the track for five minutes followed by a swarm of people awheel.

The major tried to get training cabin 13, his lucky number, but the cabin was too small to admit his bicycles and pacing tandem and he took No. 57, next to Jacquelin.

Parisians are remarking on the major's low gear as compared with Jacquelin's 104. Taylor's quick and unexpected jumps have won him many a race in America, notably the match with Cooper in Madison Square Garden, and it may put him too far ahead for Jacquelin to catch up when he gets under way with his big gear. A big demand for the Iver Johnson posters of the major awheel is indicative of the enthusiasm over him.

His first Sunday in Paris the American went to church in the morning, took a steamboat ride in the afternoon and on his return passed the Cafe Esperance, but refused all invitations to enter. He declares himself to be in good condition already and has no fear of not being fit for his great race with Jacquelin on Ascension Day, May 16, at the Parc des Princes track. His first race will be at the Friedenau track, Berlin, on Easter Monday, April 8, when he will compete in a four cornered match with Huber, Arnd and Ellgard.

The major has been signed to ride at Bordeaux May 2, and at Nantes May 6. It is, however, the great race with Jacquelin at Parc des Princes, May 16, that will practically determine the world's championship.

WHERE WILL MOTOR PACING END ?



THE ABOVE picture represents the latest step in the development of motor pacing. At the Friedenau track in Berlin a number of electric pacing tandems have been acquired and these are being rigged to receive their electric current from trolleys, much in the same manner that the familiar trolley car of our city streets collects the wherewithal to go from the glistening line overhead.

Where will motor pacing end? When pace was first introduced into bicycle racing one man went onto the track and rode ahead of another. Then the tandem came into general use and its superiority lead to the evolution of the triplet, the quadruplet, the quintuplet, the sextet and finally, although not practically, to a ten-seater.

With the coming of the multiplet, records went by the board in seemingly marvelous fashion, but not fast enough to suit aspiring racing men. So the windshield was brought out. It was censured at once, however, as an unsportsmanlike assistance and its use barred. Faster pace was all right but wind

shields were all wrong. So along the line of faster pace instead of more thorough windshield, the development of pacing proceeded and the motor pacing outfit was sprung, first in Europe, then here, when Henri Fournier brought over a three-wheeler.

With the evolution of the motor tandem and the pacing motor tricycle came such a smashing of records as the world had never seen or dreamed of, but the still pace had not proven itself perfect enough and the discarded windshield again came to the front, only to again get the black eye.

Regardless, also, of the great speed made possible by the modern motor pacing machine it has had its disadvantages in the way of accidents and disastrous refusals to go when speed is most needed. Now, to eliminate balky hydrocarbon motors from the field of paced racing, the enterprising Dutchman is preparing to introduce the trolley electric tandem whose only mechanism is a simple electric motor and whose power supply is unlimited, hence also its speed. What next? Full fledged trolley cars or

the locomotive pace of mile-a-minute Murphy emulated on a ten lap track?

PHILADELPHIA RACING ASSURED

Philadelphia, April 1.—The parties who were trying to secure capital to erect a coliseum here having failed, the local cycle board of trade will in all probability immediately take steps to not only promote a series of independent race meets at Woodside park, but to apply for several dates in the N. C. A. circuit as well.

Local lovers of the sport have not entirely abandoned the hope that the present season will witness the erection of a coliseum, for it has developed that Arthur Irwin, the well known baseball manager, who recently secured the Charles River park track, Boston, for the approaching season, can secure the necessary capital for the enterprise now that the other parks have definitely decided to abandon the field.

Archie McEachern last week signed a contract to ride for the A. B. C. Since it has developed that the latter concern has also decided to boost the amateur end of the game, the local amateurs have apparently come to the conclusion that there will be "something doing" here this year and have begun to get into shape for the fray. Last season the N. C. A. practically abandoned amateur racing here, with the result that the riders—and the public—gradually lost interest in the game. Good amateur racing has always been appreciated in Philadelphia, and if the N. C. A. officials will enact legislation that will prevent amateurs (?) following the circuit and scooping in all the good things there is no reason why amateur racing not only here, but elsewhere, may not be successfully re-established.

A. B. C. AFTER THE AMATEURS

New York, March 30.—After having announced its intention to support racing by hiring teams of professionals, the American Bicycle Co. to-day officially decided to encourage amateurs and to do it on an extensive plan. With this end in view it has arranged that the country be divided into twenty-eight districts, as follows:

Maine, New Hampshire and Vermont; Massachusetts; Rhode Island and Connecticut; New York; New Jersey; Pennsylvania; Maryland; Virginia and West Virginia; North Carolina and South Carolina; Georgia and Florida; Michigan; Ohio; Indiana; Kentucky; Alabama, Mississippi and Louisiana; Minnesota and Wisconsin; Illinois; Missouri; Iowa and Nebraska; North and South Dakota;

Kansas, Oklahoma and Indian Territory; Texas; Montana and Wyoming; Colorado; Utah; Washington, Oregon and Idaho; Nevada, New Mexico and Arizona; California.

Four valuable gold medals of an elaborate description will be offered for district records made in competition, the distance to be one, two, five and ten miles under certain conditions.

SCHOFIELD WINS EVERYTHING

New York, March 31.—George Schofield, one mile amateur champion of America, won all three military championships at the tournament at Madison Square Garden this week—the half, the mile and the two mile.

MILLER TRIES AGAIN

Charles W. Miller, of Chicago, the six-day rider, has sailed for Europe. He expects to spend the season racing abroad in all the great paced and unpaced races from twenty-four hours behind motors to the great unpaced 800-mile Paris-Brest race in September.

He is as confident as ever and seems to have forgotten sundry and divers things which happened to him in the last six-day race in Madison Square Garden.

PACE MAKERS' BUSY TIME

Motor bicycle races, with and without pace followers, will be features at all big bicycle meets and especially indoor coliseum tourneys the coming season. One who has followed this branch of the sport closely estimates that fully one hundred men will find employment as pacing machine riders this year.

W. C. Stinson has signed Tensler, Gately, McCann and Meyers. Robert Walther has secured Crooks and wants three more. The pace-supplying firm of Judge and Dyer has Stone and Newkirk. C. S. Henshaw has engaged Blanchard and wants five more men. "Dutch" Weller will require eight men. Al Smith of Waltham, Mass., will need six men. Eline & Klosterman, of Baltimore and Washington, have secured Smith and French and want two more. Archie McEachern has Bobby Thompson and needs three more. Harry Elkes has Vetter and is looking for three more. Arthur Ross, who will ride on the Boston circuit, will have to have four men. Floyd McFarland has two motor tandems requiring a crew of four. Oscar Babcock has found a man to back him to follow pace and will need four men.

This demand furnishes an excellent chance for sturdy pedalers and good mo-

SPORT AND PASTIME.

tor mechanics to get good wages. The average pay of steersmen is \$60 per month and of motor men \$75 per month including railroad fares, the men paying their own board and laundry.

The foreign pacemakers are said to receive but five dollars per week.

CYCLISTS OUT IN FORCE

New York, April 1.—Yesterday's first Sunday sunshine of the season brought out an enormous crowd of riders notwithstanding that a gale was blowing. Fully 10,000 went down the Coney Island cycle path and the Hudson County boulevard was thronged. The high wind from the river kept the cyclists from the Riverside drive. Although, wind conditions considered, the numbers out fully made good this paper's recent prophecies of a notable revival of bicycle riding.

MANY WANT A CHANCE

Meyers, the retired German champion, is now trying to get out of the business harness and back into the sporting traces, the coming of Taylor to Europe being one of the chief reasons for his desire to race once more. Thus it seems that all of the European champions are looking for a crack at our dusky sprinter. Surely if the Major comes out victor he will be the first man to earn the title, "Another Zimmerman."

SOUTH AMERICA FIELD POOR

Paris, March 20.—The French and Italian riders who invaded South America during the winter season have returned and are far from satisfied with the fruits of their trip. Edward Taylor says that the sport in Argentine is decreasing and that the promise of great races with big prizes are only promoters' "bluffs" to attract the riders.

Taylor spent nearly three months there, rode in six big events, all of which he won, and secured first prizes of from \$40 to \$50 as against promised prizes of over \$100. Also out of the small prizes the riders had to pay for their pacemakers. The track in Palermo, where most of the meets took place, is fair, but the gate receipts were seldom good and the weather was generally poor.

Taylor further says that he has not been reimbursed for his traveling expenses and that he expects to have to make legal claims against the Argentine Wheelman's League, which had guaranteed his expenses.

Tommaselli, the Italian, says that the South American public likes bicycle rac-

ing extremely well, but that those who manage the races have no knowledge on the subject and handle the affairs badly, the latter characteristic being also true of the sporting press, which has kind intentions, but no qualifications for backing the sport.

On being informed of the arrival of Major Taylor and that the Major had expressed a desire to race him, Tommaselli said: "What, does the Major class me among the champions he wishes to meet and conquer? I do not know whether this proposition will be made to me, but it would indeed be pleasing."

WISCONSIN VS. MICHIGAN

Milwaukee, Wis., March 30.—Percy B. Champagne, chief consul of the Wisconsin Division of the L. A. W. for over a year, and one of the best known wheelmen in the state, has resigned. His resignation was forwarded to President Earle a few days ago. The latter's action regarding Mr. Champagne was the cause of the resignation and there are few if any L. A. W. members in this state who have any love for the Michigan man.

In a letter to President Earle a few weeks ago, Mr. Champagne desired to know if the \$500 due the national body from the Wisconsin division could not be settled on a compromise basis. To this President Earle became very haughty and said that he (busy Earle), always paid his debts on a basis of 100 cents on the dollar and hoped that he (Mr. Champagne), had enough pride for the Wisconsin Division to do the same. Mr. Earle was not satisfied with delivering these scathing remarks but said that on account of lack of self-pride, Mr. Champagne had better resign.

This the latter did, and now Louis Pierron, vice-consul, is attending to the duties of that office. Just how long he will continue is at this time a matter of speculation, as President Earle is expected here almost any day to appoint a successor to Mr. Champagne. That Mr. Earle will be coldly received is putting it mildly, as his action toward Mr. Champagne has caused considerable feeling against the Michigan man.

MORMON RACING PROSPECTS

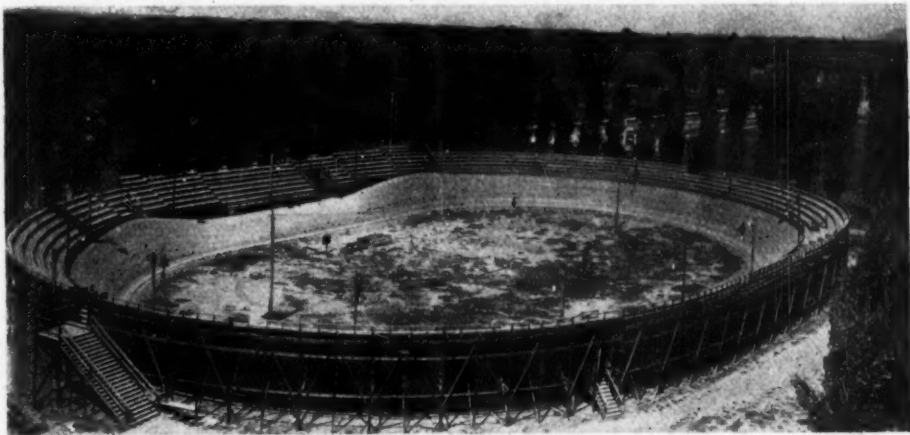
The racing prospects for the present season at Salt Lake City, Utah, are very bright. From present contemplations, there will be two tracks running this year, the Salt Palace and the quarter-mile dirt track at Calder's Park. Max Peters, who was manager of the Salt Palace association last year, will man-

age Calder's Park this year for the Rapid Transit Street Car Co., and will endeavor to make Sunday night meets pay at the Park.

The owners of the Salt Palace have not yet made any arrangements, but it has been learned indirectly that they are trying to secure a man who can manage the bicycle track as well as the grounds. The lease runs out on the grounds this year and expenses will be cut in two.

peared on the track clothed in such manner as to cause much unfavorable comment and to reflect on the sport. During the coming season all riders will be required to appear in black breeches (knee tights), though stripes of any color may be used. The color of the shirt is optional.

Riders will be required to see that their attendants are properly attired, and no attendant will be allowed on the track



THE FAMOUS SALT PALACE TRACK AT SALT LAKE CITY.

F. E. Schefski, who has managed the cycle track for the past two seasons and who was the means of bringing into the coffers of the association over \$40,000 in that time, gave his services for nothing, based upon promises. He will not connect himself this year with the track.

The racing men are preparing for the season and most of them have placed their orders for racing machines. Many riders are expected here this season and the racing will be as popular as ever if the promoters manage to keep out all crooked work on the tracks.



FOR THE SAKE OF TOURISTS

For the benefit of readers who may be contemplating bicycle tours in Great Britain the coming summer the address below of the American representative of the Cyclists' Touring Club of England is given: F. W. Weston, 99 Equitable building, Boston.



THE RACING MAN'S CONDUCT

The privileges, rules, rights and morals of the racing man during the season of 1901 are summarized, for the benefit of riders, as follows:

In the past riders have frequently ap-

peared during a race meet unless his costume is neat and proper. Sleeveless undershirts, etc., will come within the objectionable style of attire.

Riders are particularly warned in reference to team work, and all violations of the rules concerning this detrimental feature will be strictly enforced this season.

The board of control is now considering a plan making legitimate a form of team work in handicaps which will be tried early in the season in an endeavor to eradicate an evil that has greatly injured sprint cycle competition in the eyes of the public.

Gambling games of any description by riders, trainers, attendants, or other persons are forbidden about the training quarters and grounds of tracks enjoying membership in or obtaining permit privileges from the N. C. A. Violations of this rule may result in the suspension or fine of the offenders.

Riders should bear in mind that once having entered for a meet, such entry cannot be withdrawn except with the consent of the promoter.

Protests to the board of control in reference to the decisions of referees rendered in connection with actual competition must be made within twenty-four hours after the race, and can only

then be considered in the event of written notice having been served on the referee during the progress of the race meet and before the delivery of prizes. All protests must be made in writing, signed by the objector, and accompanied by a deposit of \$2, which will be forfeited if the protest be considered a frivolous one. Such protests must be handed to the referee, who will see that same are forwarded to the board members in charge of the district. Riders may supplement such protests with additional information sent direct to the board members.

Riders also have the privilege of carrying any decision of the board of control to the board of appeals within thirty days after official notice of the action of the board of control. Every appeal presented to the board of appeals must be accompanied, in the case of a rider, by a deposit of \$5, to be returned if the decision be rendered in favor of the appellant, or forfeited to the N. C. A. in case the appeal be dismissed.



ONLY ANOTHER BUBBLE

The story printed this week in the Boston Globe concerning an impending racing rebellion and the formation of a new racing association proves to be but a tempest in a teapot affair and of little importance were it not that the story has been copied by other papers ignorant of the true state of affairs.

Jay Eaton and Orlando Stevens, self-confessed participants in a fake, double cross match at Vallsburg last July, for which they were suspended for life, are at the bottom of the so-called movement. They with some of their friends thought they saw in a couple of isolated instances of tracks being on bad terms with the N. C. A. administration, a chance for the formation of a new association, wherein the blacklisted ones might again pose as stars and with other disgruntled ones among riders and promoters might run a go-as-you-please game of cycle racing without restriction.

The tracks to which the exiles and malcontents looked for a future field of operation were Waltham and Belleville.

John J. Donovan, of the Boston Globe, and Charles G. Percival, a disposed handclapper, had made quite a considerable rake off from a meet at Waltham last Labor Day and secured a lease of the track for 1901. With this lease they

sought to hold up the Waltham Athletic Association, which had secured sanctions for two important holidays; but the Waltham association promptly handed over its sanctions to Charles River Park. This left Percival and Donovan stranded with the Waltham track, left, like a white elephant, on their hands through their own cupidity. Naturally they were open to engagements from exiles, et cetera. Donovan had a cycling column at his disposal and has made the most of it, the rebellion and new association story being the climax.

For two years a little dirt track at Belleville, N. J., within the district, for which the Vallsburg promoters hold the franchise, has been striving for recognition, which has been refused in favor of the holder of the franchise.

This track was sought by the exiled Eaton and it gave profuse promises for the asking.

Thus the Belleville and Waltham tracks, with a pair of exiles as the prospective stars, to whom might possibly be added a few second-raters, are all there is of the rebellion and new association, and it seems that the new outlaw outfit stands about as much chance of winning as a snowball in Gehenna.



ANOTHER EVIDENCE OF NEW LIFE

New York, March 24.—In talking with an Age man yesterday a member of the N. Y. Automobile Club said "I had no idea of the great revival in cycling this year until I went down in our bicycle room recently. Last year at this time there were comparatively few machines there and I was surprised to find at least four hundred bicycles all, as the attendant said, 'on the active list.' The members this year are talking cycling very enthusiastically and many are already arranging tours for the early spring."



Cordang, the Dutch champion, recently suffered from a fire which burned up all of his tangible assets in the matter of living from clothing to pacing tandems.

The German Racing Association will hold a race meet at the Friedenau track in Berlin, June 30, with a total prize list of \$750, of which \$250 will go to the winner of the great prize of the association.

The Demorest and The Dealer or The Dealer and The Demorest

**Whichever Way You Put It,
The One Must Interest the Other**

**The Demorest line of
Bicycles, like the Dem-
orest Sewing Machine,
is complete, compre-
hensive and beyond
reproach. It is not
swayed by fizz or fire-
works, by poetry or
emotion. Its standard
is fixed for all time.**

**There may be dealers whom we cannot interest, but
we can scarce believe it. We are ready
to submit our facts and figures; are
YOU ready to receive them?**

Demorest Mfg. Co.,

Williamsport, Pa.

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INFORMATION FOR BUYERS AND BUILDERS



HARRY CASSADY has resigned his position as manager of the Milwaukee bicycle factory of the American Bicycle Co. to become sales manager of two of the largest plants owned by the Automobile & Cycle Parts Co., namely, the Smith stamping factory in Milwaukee and the Thompson factory in Chicago. Mr. Cassady has complete charge of the latter establishment, which, by the way, makes hardware specialties of a variety little known to those who have come to look upon its products as confined exclusively to cycle parts. The making and marketing of curling irons, nut crackers, metal hat, towel and coat racks, tracing wheels, stove poker, glove and shoe buttoners, and a long list of other specialties will occupy no small part of Mr. Cassady's time, but as his apprenticeship was spent at that form of work—he was one of Hibbard, Spencer & Bartlett's salesmen before entering the bicycle field—it will not perplex him.

The Smith plant will be fully developed by Mr. Cassady. Already he has a tubular running gear for light horse drawn vehicles to market, and soon the factory will be making a running gear for automobiles. Carriage hubs, the shells and axles of which are of tubing, and the cups, cones, nuts, bolts and caps of which are stamped, will be conspicuous in the new forms of manufacture. In marketing these new products, as well as the well known line of Smith cycle stampings, the ability of Mr. Cassady will have full play.

CYCLE AND AUTO DIRECTORY

The National Bicycle and Automobile Directory, published by Paul Mensch & Co., 92 LaSalle street, Chicago, has just come from the press and is now ready for delivery. It contains over 30,000 corrected names of makers of bicycles and automobiles, parts and sundries makers, jobbers, supply houses, dealers and repairers of the United States and Canada. The first portion of the book, which is bound in cloth and sells for \$5, is devoted to the bicycle trade and the remainder to the automobile industry. The latter section

also includes a list of automobile clubs, owners, etc. The publishers claim that it is the most complete list of the kind ever issued and assert that for the sake of accuracy it was corrected up to the very hour of going to press.

BOTH SIDES PRESENTED

The most recently issued circular presenting the excellencies of "3 in 1" and other specialties of the G. W. Cole Co., 141 Broadway, New York City, is folded with both sides partially in and partially out and one is labeled "Said by us," while the other bears the caption, "Said by others." The testimony of both sides thus presented is, of course, to the effect that there is nothing on earth like "3 in 1."

SIMPLE SEDGWICK ENGINE

One of the principal features of the Sedgwick steam engine for motor vehicles is that one lever controls both the direction of motion and the cut-off. This gives the operator perfect control of the engine and vehicle with but a single lever to handle, and, with a simple and effective lever lock on the carriage, permits him to leave the carriage with steam in the valve chest and everything ready for immediate starting without liability of condensation and pounding.

The valve is of the balanced type and its makers say that so simple and effective is it that there is no excuse since its introduction for the use of the old-fashioned—though, to be sure, reliable—link movement originated by Stephenson seventy-five years ago. A mechanical expert who inspected the engine at the Chicago show remarked, to give a correct idea of its simplicity, that it had nothing to adjust.

The engine frame is designed so that the hardest usage will not injure the alignment of the running parts. The most popular pattern rates 5 brake horsepower and weighs 45 pounds, although the engine is made in 8, 10 and 12-horsepower sizes as well. At the show an 8-

FISK TIRE IMPORTANCE TIRES

The Tire determines the pleasure to be derived from wheeling.
If the Tire is light, fast and easy to repair, and your wheel is half way satisfactory, comfort is bound to follow.

If your Tire is of the cheaply-made, inservicable and trouble-giving kind, no matter how good the rest of your wheel is, your wheeling path is bound to be a thorny one.

Fisk Tires are the light, resilient, easy-riding, easily-cared-for kind.

In material and workmanship they are all that a tire possibly could be.

We make all sizes and styles for bicycles and vehicles.

Ask for our catalogue.

Fisk Rubber Co., Chicopee Falls, Mass.

BRANCHES: Springfield; New York; Syracuse; Buffalo;
Detroit; Chicago; 36 Dearborn St.; San Francisco,
109 New Montgomery St.
A. F. SHAPLEIGH MFG. CO., St. Louis, Mo.
Distribution for Central and Southern States.

HIGH
GRADE

WELL
MADE

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INFORMATION FOR BUYERS.

horsepower engine was sold to a Chicago party who desires to use it in a steam racing machine.

The engine is made by the Richmond Automobile Co., of Richmond, Ind., and R. L. Sackett is the mechanical engineer who is responsible for its introduction.



NEW DYKE CONCERN

A. L. Dyke, the proprietor of the St. Louis Automobile & Supply Co., of St. Louis, until the latter was sold to the Scott Automobile Co. a few weeks ago, has now embarked into business for himself with offices at 3215 Washington avenue. Mr. Dyke originated the Automobile Supply Co. nearly two years ago, but this concern was absorbed by the St. Louis Automobile & Supply Co. It is claimed that the original concern was the first of its kind in this country. Another distinction which Mr. Dyke claims is that of building the first practical electric vehicle west of the Mississippi river.

A new line of materials for automobile building, including the new Dyke flexible running gear, will be carried by Mr. Dyke in his new business, and particular attention will be paid to the needs of those who assemble automobiles in small lots or singly.



GOGGLES FOR THE CHAUFFEUR

In addition to supplying all manner of parts and fittings for the manufacture and repair of motors and motor vehicles, the New York jobber, Charles E. Miller, 97 Reade street, New York City, now pays particular attention to furnishing goods for the automobilist. In a recent issue of this paper Miller's new regulation leather automobile cap was illustrated. The accompanying illustration presents the new automobile goggles over which Mr. Miller is at present enthus-



Miller's Auto Goggles.

lastic, and which are fitting companions for the chauffeur's cap.

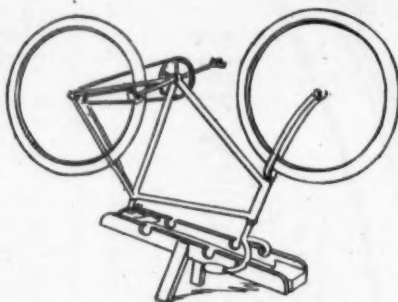
Goggles are almost a necessity for fast automobile driving and a comfort without question. The Miller article in this

line is said to be made according to the correct French fashion, and to be recommended by several of the most prominent eastern automobilists. These, with the other Miller goods, have been placed for western trading in the care of P. J. Dasey & Co., 160 Washington street, Chicago, western agents.



CONVENIENT BICYCLE STAND

Ever since the introduction of the safety bicycle fourteen years ago the cycle trade has been the playground for a

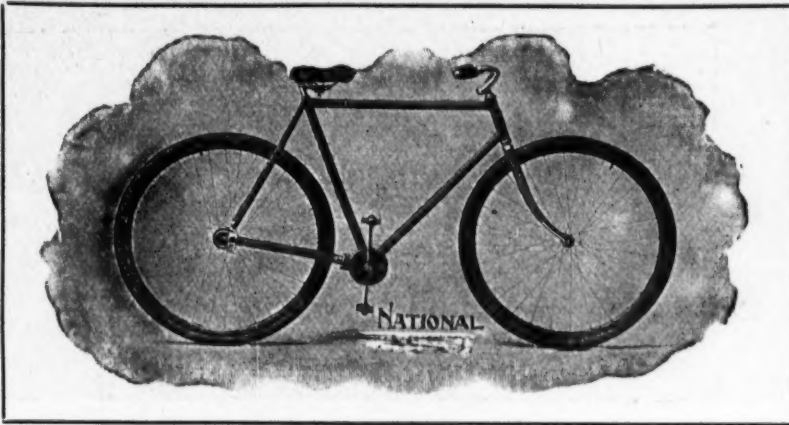


Flint's Bicycle Cradle.

multitude of inventors of bicycle stands and racks. Indeed, not only have numberless contrivances of the kind been invented, but scores will hardly count the different ones which have been introduced commercially either with or without lasting success. And yet one often finds it hard to obtain a simple, inexpensive stand which will serve double duty as a convenient cleaning stand for home or club work and as repairers' stand for shop work. It is to fill this demand rather than to compete with comparatively expensive assembling jacks that E. W. Flint, 26 North Raymond avenue, Pasadena, Cal., has brought out the bicycle "cradle" shown in the accompanying illustration.

This cradle, or stand, supports any bicycle upside down, rigidly, without bolts, screws or straps, it being only necessary when using it to set the bicycle in place upon it. It may be readily tilted back and forth to bring either end of the machine upward so that the operator can work on any part of the machine without stooping. It is especially adaptable for home use by ladies, as it allows them to securely hold their bicycles for cleaning without danger of the front wheel turning and soiling their clothing.

The supporting side rails are spread further apart at one end than at the other, so that the cradle will accommodate machines with wide and narrow handle bars of different shapes. The legs or rockers are spread outward to



The Chainless National

Like all Nationals, they have an individual-
ity all their own—there are no others like
them. They are exclusively National,
both in design and manufacture, and best of
all they serve their riders as satisfactorily
as the chain models. ❦ ❦ ❦ ❦

CHARLES CITY, IOWA, March 20, 1901.

Your Chainless is all right. I could not ask for a wheel to look better after 1,500 miles riding. You would not know that the wheel had been used. The man that I sold that wheel to last fall bought the second one this spring.

Yours truly,

C. H. BAILEY.

The old National rider buys a new National bicycle, not because he wants a new bicycle but because he wants a new National bicycle.

❦❦❦
Get Catalogue and Prices.

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NATIONAL CYCLE MFG. CO.

=====**BAY CITY, MICH.**=====

=====**MAKERS**=====

46

INFORMATION FOR BUYERS.



THE STURGIS HYDROCARBON TRUCK.

insure against tipping. The general utility of the cradle and its extreme simplicity and durability are evident by a glance at the illustration.

STURGIS FREIGHT TRUCK

Gasoline freight trucks for heavy work are a comparative novelty, the most notable progress which has been made in the development of auto-trucks having been along the line of electric and steam propulsion. That the hydro-carbon system is being boosted into line is demonstrated, however, by the fact that not only are European makers and eastern builders of this country experimenting with such machines, but the work has traveled across the continent to the Pacific coast and rested for business in sunny California.

S. D. Sturgis & Bros., who operate a machine and gear works at Los Angeles, have just completed the hydro-carbon freight truck shown loaded down with inhabitants in the accompanying illustration. The engine has four cylinders in opposed pairs and is said to be capable of developing 40 horsepower. The pulling capacity of the truck is ten tons, carrying five tons on the truck floor and pulling a trailer of five tons' capacity. It has a range of speed of from $1\frac{1}{2}$ to 6 miles per hour and has climbed grades up to 16 per cent. The 42-inch wheels have flat tires 12 inches wide in the rear and 7 inches in the front.

The steering is controlled by means of a segment gear and pinion, which are operated by a large hand wheel and actuate steering knuckles of ordinary, although heavy construction. Three levers on the right side of the operator control the motor and transmission and two

strong brakes are available, either of which is sufficient for ordinary purposes. The gasoline is carried under the seat and is pumped to the cylinders. One hundred gallons of water are carried in a tank under the platform and the circulating pump through which the heated water is forced is at the front of the truck. The truck has been run, it is said, ten miles at four miles an hour without heating the water highly.

The power transmission is by gears, governed by friction clutches. The length over all of the truck is 20 feet and the width a little over 7 feet; the floor has a free space of 110 square feet, and the weight with water and gasoline tanks full is 5 tons.

The Sturgis brothers are prepared to build this truck in any size or capacity to order, although they will soon be ready for the extensive manufacture of a standard pattern for general city trucking.

POORMAN'S BIG LINE

J. E. Poorman, Jr., son of the well-known Joe Poorman of Cincinnati road race fame, has a general bicycle and sporting goods jobbing business at 21 West Fifth street, Cincinnati, which, judging by the recently issued catalogue, is of more than usual pretense. The booklet is large and shows goods of many lines. The house is distributing branch for the following manufacturers:

Morgan & Wright, American Dunlop Tire Co., B. F. Goodrich Co., L. C. Chase & Co., Goodyear Rubber Co., Kundtz Wood Rim Co., Niagara Pedal Co., Morrow Coaster Brake Co., Indiana Chain Co., Stockton Mfg. Co., Eugene Arnstein, Sharp & Smith, Athletic Knitting Co., Kelly Handle Bar Co., Badger Brass

A Word as to Cushion

Frame Chain Wheels

It is frequently said that "1901 will prove a Cushion Frame year." That may or may not be true. To The George N. Pierce Co. every year has been a Cushion Frame year since 1899, because it has intelligently built and diligently sold these wheels. Utilizing the reputé thus created other makers of wheels are now on the market with this device. The George N. Pierce Co. for 1901 offer these models to the trade backed by four years of experience. The quality is the best. The equipment is unequaled, including Palmer Tires and Morse Chains. Experiment is past on PIERCE Wheels. If you want all this at competitive prices order only PIERCE.

THE GEORGE N. PIERCE CO.

Buffalo. Boston. New York. Denver. San Jose.

INFORMATION FOR BUYERS.

Works, American Electrical Novelty Co., Ideal Supporter Co., Kokomo Rubber Co., Matthews & Willard Mfg. Co., Electro Lamp Co., Draper & Maynard, N. N. Hill Brass Co., Fiber-Buckskin Mfg. Co., Cushman Dennison Co., Frank E. Bundy Lamp Co., Twentieth Century Lamp Co., Record Pedal Co., Dexter Luggage Carrier Co., Brown Saddle Mfg. Co., Watson Seat Post Co., Whitely Exerciser Co., R. H. Ingersoll & Co., National Gramophone Co., E. P. Breckenridge Co., Hartford Rubber Works, Diamond Rubber Co.

AUTOMATIC AIR PUMP

In response to a recent inquiry in this paper from a reader, for an automatic pump to sustain the desired air pressure in the fuel tank of a steam vehicle, Walter M. Reason, of Pontiac, Mich., writes that he is the inventor of such a pump and that he is now introducing it commercially. The Reason pump weighs less than four pounds, is automatic in every feature and when once attached to the vehicle needs no attention after it has been adjusted to give the correct pressure.

It is avered by Mr. Reason that vehicle builders who have tested his pump say that it is a complete success. It has been adopted by several makers and others are negotiating for its adoption.

The pump is placed in a convenient position underneath the carriage body and is actuated by a small eccentric placed at the side of the rear axle compensating gear. The whole mechanism is neatly covered and protected from dust and dirt. The pump is used directly in connection with the gasoline tank and no air tank is necessary. The pump ceases to operate as soon as the desired pressure is attained in the gasoline tank and when this pressure, by consumption, has been reduced from four to six pounds it begins operation again automatically and raises the pressure to the point for which it had been set.

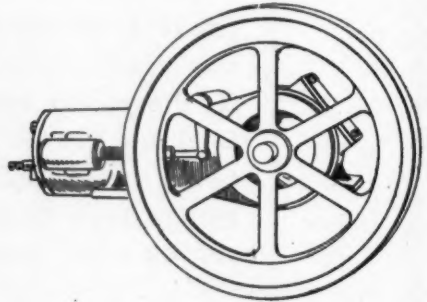
Patents have been granted for the pump in this and foreign countries and several other applications are now pending. Mr. Reason states that deliveries can be made within ten days.

RELIANCE MOTORS

The accompanying illustration shows the new Reliance 3-horsepower automobile motor manufactured by H. E. Collins & Co., of Milwaukee. This company has earned a good reputation for the excellence of its upright vapor engines for general industrial purposes and fears no brooking of the current of favor in the introduction of its horizontal vehicle motor.

The automobile engine is fully water-jacketed with enclosed crank case. Cylinder oiling is accomplished by means of an automatic mechanical oiler that feeds only when the engine is in operation. The crank pin is oiled by the centrifugal tendency of the crank action, from a compartment oiler placed wherever most convenient after the motor has been attached to the carriage. Electric ignition, variable from 1 to 50 per cent, is provided. Speed can be varied from 100 to 1,000 revolutions by a specially made throttling device on the inlet. An automatic shaft governor will be attached if desired. Lugs are provided on the crank box and cylinder for attaching the motor to the body or running gear of the carriage.

The same motor is also made in a double cylinder pattern of 6 horsepower and is identical in construction to the



The Reliance Automobile Engine.

limit allowed by the bolting of two cylinders to one crank box and the doubling of the igniter and exhaust. In both patterns gasoline is used direct from the tank to the engine and is controlled by a needle valve automatically operated by the engine. It is claimed that change of weather will not affect the running of the engine with this method of using the gasoline, and several other advantages over carbureter gasoline usage is pointed out by the makers, one being extreme immunity from explosion on account of the gasoline being imprisoned within iron walls from the time it leaves the tank until the exploded gas has been exhausted into the atmosphere. With this motor the makers recommend the use of its Type E igniting dynamo, instead of batteries.

The company's catalogue contains many interesting facts about its motors and on the general subject of hydrocarbon engines.

NEW ELMORE RIGS

The Elmore Mfg. Co., of Clyde, O., is introducing two new gasoline vehicles which are in many mechanical features,

U. S. COURT JUDGMENT

Against the Combination's Customer, W. G. Schack

The prime movers in the "Combination" say the "Combination" has been waiting for two years to fight W. G. SCHACK was a customer of the "Combination."

READ THE JUDGMENT

They say they are ready to defend any suit we may bring against their customers.

READ THE JUDGMENT

They made the same statement two years ago.

READ THE JUDGMENT

Do you believe the "Combination" or the United States Court?

READ THE JUDGMENT

They say the Curlin Patent does not apply to bicycle tires.

READ THE JUDGMENT

NEVERLEAK WINS, AS USUAL!

IT IS FOUND, ORDERED, ADJUDGED, AND DECREED that the letters patent granted to said Seth Curlin, on said 17th day of June, 1890..... is a good and valuable patent..... and also that said defendant has infringed upon said patent and upon the exclusive rights of..... Buffalo Specialty Manufacturing Co., under the same.

AND IT IS FURTHER ORDERED, ADJUDGED AND DECREED that a perpetual injunction be issued, and that the said defendant, his agents, servants and workmen be, and they thereby are, forever restrained and enjoined from making, or selling, or using, or causing to be made or to be sold, or to be used, any tire fluid or compound used or to be used to heal or close vents or punctures in, or which may occur to pneumatic tires or other inflatable articles..... In accordance with the prayer of the complainant's bill herein.

Judgment signed this 23d day of March, 1901.

JOHN R. HAZEL,
U. S. District Court.

READ THE JUDGMENT

READ THE JUDGMENT

READ THE JUDGMENT

READ THE JUDGMENT

READ THE JUDGMENT

INFORMATION FOR BUYERS.

as well as in general design, distinctive from the original friction-drive Elmore runabouts. Sprocket and chain transmission has been adopted, but in every respect the company has stuck to its original manufacturing policy of seeking



The New Elmore Carriage.

the acme of simplicity wherever possible in the construction of a vehicle.

The accompanying illustration presents the new runabout pattern. The dos-a-dos trap differs most plainly in that it addition to being higher and larger it has wooden instead of wire wheels. Both are driven by the company's Simplex hydro-carbon engine, whose previously demonstrated merit has led to the introduction of the Elmore carriage catch phrase, "They are always ready to go."

The runabout has a twin-engine motor each of whose sections can be run independently of the other, according to the amount of power needed. The Cleveland and Toledo agents both had the opportunity of testing the vehicles last week under exceedingly trying circumstances and found that a half a foot of mud and slush had no terrors for the Elmore.

The company is also preparing to place on the market a delivery wagon using the same engine that is used in the trap.



ALLEN'S ARMORED TIRES

The accompanying illustration shows a steel armored tire for which letters patent were recently granted to Charles F. Allen, of Hueneme, Cal., and which is being introduced jointly by him and one of the original assignees of the patent, Lundy B. Hogue, of Santa Paula, Cal. The sectional views show the construction of the tire and the method of applying one of the steel armor plates. Claims taken from the inventor's prospectus set forth as follows some of the most important objects and advantages of the tire:

The tread being of metal, prevents slipping on wet pavements. Tire brakes can be used upon this tire

with the same facility, as upon an ordinary iron-tired, wooden wheel without danger of injury to the rubber portion of the tire. The addition of these juxtaposed plates of steel alloy to a pneumatic tire does not detract from its general appearance, but gives to it a finished and substantial effect, which is really pleasing to the eye. The addition in weight is very slight. The sections are made of a steel alloy, which will not oxidize and in turn hasten the oxidation of the rubber which comes in contact with them. The sections are highly finished, smooth surfaced, having no sharp edges to cut the rubber or cause chafing. The sections are set side by side with as little space between as possible, and dirt does not work between these plates nor between the plates and rubber enough to cause annoyance. An offset is made in the center portion of each section, which is filled with powdered mica before they are attached or put in place. This serves to lubricate the inner surface of each section, which effectually prevents chafing between the rubber portion of the tire and each section. It also serves to keep dirt from entering between the sections and the rubber portion of the tire. If such should be the case, the particles that have entered are immediately coated with mica and eventually reach the pocket formed in the section, which holds the supply of mica, where its chafing effect on the rubber will come to an end or be retarded.



Allen's Armored Tire.

The metal sections of this tire are easily applied and may be either attached or detached by inflating or deflating the tire respectively, as the case may require. These metal sections may be either cast or dropforged

A Chain Is as Strong as Its Weakest Link



No. 151 "Diamond" Automobile Chain

Pitch, $1\frac{1}{4}$ inches; width, $1\frac{1}{2}$ inches; diameter of rollers, $\frac{5}{8}$ inch; thickness of sides, .125

This pattern has polished straw tempered hard rollers, hard steel bushings (not split), hard rivets, full polished blue S sides "chanfered." Its tensile strength is 6500 pounds.

We have been making chains, and nothing else for nine years. Our factory is exclusively equipped for chain manufacture. It is the largest chain plant in the world.

The characteristic qualities of "Diamond" Chains are accuracy, strength, uniformity and finish. Prices on application.

THE AUTOMOBILE AND CYCLE PARTS CO.

DIAMOND CHAIN FACTORY

INDIANAPOLIS, IND.

ANDRAE

CYCLES NEVER DISAPPOINT

The 1901 Models—Andrae cycles—are **New, Absolutely New.** They're made from the freshest material on the newest machinery.

There are no last year's Andraes or last year's stock in our line.

We don't make more bicycles than we can sell—and with hustling agents we are selling all we make.

Are you an Andrae agent?

Would you like to be?

Would you like to make more money, sell better wheels, newer wheels, later wheels?

Then write to us. Do it now.

JULIUS ANDRAE & SONS CO.

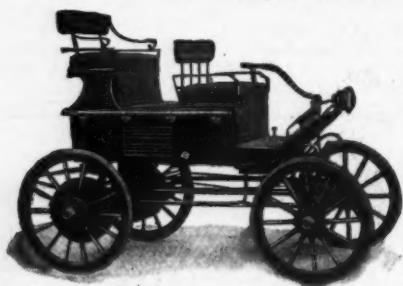
MILWAUKEE, WIS.

NATIONAL AUTOMOBILES

For BUSINESS
and PLEASURE.



Combination Wagon with Delivery Top.



Same Vehicle, with top off and Seat on
for pleasure driving.

SOMETHING UNIQUE IN AUTOMOBILE CONSTRUCTION.

The most useful all-around Automobile ever devised, which appeals to every enterprising man engaged in a business for which it is available, is the

NATIONAL COMBINATION WAGON

Our "AUTO BOOK"

which we will send you on receipt of 10 cents in stamps, will show you this. If you are going to purchase an automobile, this will be the best 10 cent investment you ever made.

Illustrated pamphlet mailed free to any address.

National Automobile & Electric Co.
INDIANAPOLIS, INDIANA.

1102 E. 22ND ST.

and furnished to the trade by the gross, independent of the pneumatic portion of the tire. In other words, the user of automobiles supplied with these tires can change their worn out sections for new ones at a very low cost. As it requires a direct pull of 800 pounds or more to disengage these sections, it is evident that no trouble will be experienced by them becoming loose or springing from their respective places. Creeping of these sections is also provided against by having a hump in the center of each section, which fits into a corresponding notch in the lips projecting from the rubber pneumatic portion of the tire; this serves to hold the section in its proper place. No undue noise is observable, as the pressure of the rubber pneumatic portion of the tire upon these sections serves to deaden the noise. The tread being flat, the traction of this tire is necessarily greater than that of others, enabling the user of these tires to climb grades, go through mud and sand with ease and safety. No rivets, bolts or screws are used to fasten these sections to the rubber pneumatic portion of the tire, as in other makes, consequently there is nothing to become loose and rattle or tear out and injure the rubber portion of the tire.

Before buying an Automobile see if it is equipped with a

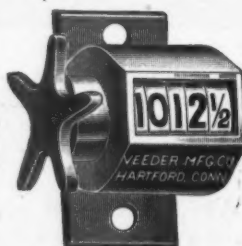
VEEDER ODOMETER

If it is you may feel reasonably certain that its manufacturer pays careful attention to detail, and it is a guarantee that he is not exaggerating the efficiency of his motive power, or over estimating his fuel capacity.

Veeder

Odometer

Only.



Made for
24, 26, 28,
30, 32, 34,
36, 38, 40,
41, 42, 44,
46, 48 and
50 inch
wheels.

The following leading Automobile Manufacturers have adopted the Veeder Odometer and offer it as a regular equipment:

The "Locomobile" Co. of America.
The National Automobile & Electric Co.
The De Dion-Bouton Motorette Co.
The Overman Automobile Co.
The St. Louis Motor Carriage Co.
The Milwaukee Automobile Co.
The St. Louis Automobile & Supply Co.
The Daimler Mfg. Co.
The Steamobile Co. of America.

Twelve page Catalogue free.

THE VEEDER MFG. CO., - HARTFORD, CONN.

MAKERS OF

Odometers, Counters, Cyclometers, Fine Castings.

ARE YOU LOOKING FOR



THE SAME OLD THING?

DON'T!!!

Look for the Best—That's Progress

Perfection Anti-Rust Spokes

The RESULT of ADVANCED IDEAS
PERFECTION in every DETAIL
ABSOLUTELY GUARANTEED NON RUST

Everything for Bicycle Builders and Dealers

EXCELSIOR SUPPLY CO., 88-90 Lake Street
CHICAGO, ILL.

DOWN STAIRS IN AN AUTO

Detroit, Mich., March 27.—Joseph H. McDuffee, the hero of the ascents to the tower of Madison Square Garden at the automobile show in New York last fall, has again made a spectacular trip in a Mobile. In the presence of a few spectators he yesterday successfully made the descent of the long, steep flight of steps leading up to the entrance of the new county building, performing a feat which to many looked like a plain attempt at suicide.

The thing causing the greatest uneasiness to McDuffee was the fear that his performance might be prevented or in-

terrupted by the police, who would certainly not permit such a hazardous risk of life and limb. The new county building is situated within a block of police headquarters and officers are in the neighborhood at nearly all hours of the day.

Yesterday noon when the workmen employed in completing the building were away at dinner, McDuffee, accompanied by William E. Metzger, local agent for the Mobile Co. of America; Glenn Stuart, the old L. A. W. handicapper; Mrs. McDuffee, a representative of this paper, and a few other interested specta-

It Is a Good Story

That will stand telling often, and our agents have found it a profitable story to tell the public.

It Is an Old Story

Of the curved frame and noiseless, double roller chain, the distinctive and superior features of cycle construction which made the Keating bicycle reputation of "365 days ahead of them all."

It Is a New Story

That we would like to tell you also, (and it will go fast). It is the story of the Keating motor bicycle. It is different from the many so-called motor bicycles. Mr. Dealer, we can entertain you. Send us the invitation to do so at once.

Keating Wheel & Automobile Co.

Middletown, Conn.

tors, went over to the county building.

McDuffee spent some time circling about on Cadillac square waiting for a moment when no policeman was in sight. The moment came at last and McDuffee alighted from his carriage at the foot of the steep flight of steps. Eight "husky" men who had been waiting by the curb, wit the aid of a rope fastened to the front of the Mobile and with much lifting and shoving, helped McDuffee get his 750-pound machine to the top of the steps. It was there turned and with scarcely a foot of space between the front wheels and the edge of the first step, McDuffee mounted the seat and moved the throttle.

The descent of the first three or four steps was made slowly, the carriage bumping over to the next four or five more rapidly. Midway down, McDuffee checked it and came almost to a full stop. Safely crossing two landings, which had been feared most, the carriage passed over the remaining steps, down over the sidewalk and was stopped within three feet of the curb.

The descent was made in a few seconds, but it seemed hours to the crowd watching the pneumatic tires bounding on the steps, and expecting every moment that McDuffee would be jolted out or that the heavily weighted rear of the Mobile would turn over forward and the machine and operator go rolling down the steps. Nothing of the sort occurred, however, and McDuffee maintained perfect control of the vehicle all the way down.

McDuffee's first comment on reaching the street was in reference to his hat, which had nearly been jolted off on the way down.

"I couldn't reach up and fix it and preferred letting the hat get a bumping to taking one myself," he smiling explained.

"I know the machine," he continued, "and am not afraid to go anywhere that there is room enough for the wheels. I was not afraid the first time I made the ascent at Madison Square Garden and afterwards made the round trip many times in 40 seconds."

McDuffee was formerly manager of the Chicago branch of the Mobile Co. of America, but has recently come to Detroit to take charge of William E. Metzger's motor vehicle store.

FURNISHES A NEW VOCATION

A new profession for young men has followed in the wake of the automobile. The automobile demonstrator is as indispensable to the business as is the motor carriage itself. In order to occupy this lucrative position an applicant must be possessed of a good education, good address, good appearance and a thorough

COMFORT

WITH

SPEED

IS THE

CUSHION

FRAME

MOTTO

The CUSHION FRAME is positively the greatest bicycle invention since the advent of the pneumatic tire. It practically increases the resiliency of the tire four fold without in the least detracting from the speed or power of the wheel (as compared with the so-called rigid frame). The most enthusiastic converts to the Cushion Frame are the old-time, speedy "get there" riders who at first "scoffed" the idea of COMFORT being combined with "speed and power" in a bicycle :: :: :: ::

HYGIENIC WHEEL CO.

220 Broadway, NEW YORK

Owners of the Cushion Frame Patents.

ADVERTISEMENTS.

knowledge and understanding of the mechanism and manipulation of the auto, says the Worcester, Mass., Gazette. His duties are responsible but pleasant. The manufacturers have conceived the idea of sending a demonstrator with each carriage to teach the buyer how to handle his purchase.

In order to thoroughly learn his trade the demonstrator is placed first in the assembling room, where he can study the construction of the carriage. He must acquaint himself so thoroughly with the machine that if it should break down on the road while it is under his manipulation he will be able to repair it and put it in running order, thus saving the time which would be lost in sending for a repair man or a machinist.

After he has learned the mechanism of the carriage, he is placed in the testing department. Here he fires up and gives the carriage a thorough inspection. It is his duty to see that the machine is in working order, correct in every detail and ready for shipment.

After having thoroughly canvassed the trade in this country and England with advance sheets issued almost weekly and of various styles and sizes, the Wisconsin Wheel Works, of Racine Junction, Wis., has now published its complete catalogue of Mitchell bicycles and motor bicycles, showing the six patterns and the parts and equipments of them in a neatly made booklet from the press of Hollister Bros., of Chicago.

MISCELLANEOUS

Advertisements under this head 5 cents per word first insertion; 3 cents per word each insertion thereafter. Cash with order. Express orders, postoffice orders or stamps received.

FOR SALE

FOR SALE—The Automobile Storage and Repair Co., 57 West 66th St., New York, have new and second-hand steam, gasoline, and electric carriages constantly on hand and have always some special bargains.

FOR SALE—One Waverley Electric Automobile, second hand, but as good as new; for two or four passengers; cost \$1200.00; will sell for \$600.00. Address, F. L. MOORE, 34 Monument Pl., Indianapolis, Ind.

WANTED

WANTED—Active partner with from three to five thousand dollars, in old, well-established vehicle and automobile business; plenty of cash orders on hand, and on good paying basis. Owners and builders of the best gasoline automobile on the market (no experimental work to do and no money to waste); thoroughly advertised; fine factory on long lease at low rent; business has outgrown present owner's ability to handle it alone. Address for information—THE INDIANA MOTOR & VEHICLE CO. Indianapolis, Ind.

WANTED—Steam or gasoline ten-passenger stage. —Geo. L. HOUK, Tokeland, Wash.

Trade  Mark

FAUBER PERFECTION HANGER



THE DIAMOND SQUARE CRANK

Unequaled in any of the points which make a Perfect Hanger.

LIGHT, SIMPLE, DURABLE

W. H. FAUBER, MANUFACTURER
CHICAGO, U. S. A.

FOR YOU

The Construction of a Gasoline Motor Vehicle

A 124-page book printed on good paper and containing 167 illustrations—so plain that any machinist can build a complete 4-horsepower gasoline motor vehicle by following its instructions: : : : : : : : \$1.00

Full Size Blue Prints

Of the motor will be furnished, together with the book, for: : : : : : : \$7.50

Send in your order early.

Automobiles: What They Are And What They Will Do

Told so a school-boy can understand it. No technical language. Profusely illustrated and deeply interesting to prospective buyers. 25c.

THE BOOKS CAN BE BOUGHT AT
THE MOTOR AGE OFFICE

KOKO Tires

EASTERN DISTRIBUTER:
C. S. KNOWLES, 7 Arch St., Boston.

Are Manufactured by

KOKOMO RUBBER CO.

KOKOMO, IND.

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LEAVITT & BILL, San Francisco.

E. H. CRIPPEN CYCLE AND SUPPLY
HOUSE, Los Angeles.

\$30—\$40—\$50

It's Dead Easy
To Sell Them

**Explorer
Bicycles**

We have them for immediate delivery. They are up to date, first-class goods and yield a lasting profit. We have a special wheel to retail at \$25—at a price that is right and has the quality and style of a \$50 wheel.

Reliable Dealers Wanted
In Unoccupied Territory

Empire State Cycle Co. ..Addison..
..N. Y..

Our Sixth Successful Year

WIZARD NO. 4

Exhibition Stand



PRICE \$3.75 NET

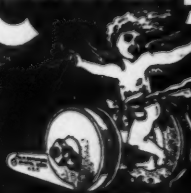
Can't help selling wheels if
you have them in this stand

Any Leading Jobber, or

New England Cycle Supply Co.

Keene, N. H.

**THE NEW DEPARTURE
COASTER BRAKE**



THE ANCIENT WITCH

**THE BEST
THE MODERN WITCH.**

SELLING AGENTS
JOHN H. GRAHAM & CO.
NEW YORK CITY.

THE NEW DEPARTURE BELL CO.

FREE WHEEL
TIGHT PEDALS
ANY SPROCKET
ROLL BACKWARD

THE ONLY PERFECT VISE ON THE MARKET

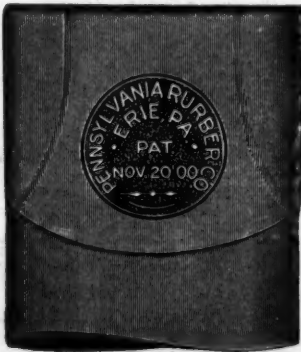
Write
your Jobber
for
this season's
reduced
prices.



Capitol Electric Engineering Co.
LANSING, MICH

HERE'S A WINNER

We have just been allowed a strong patent on the only Inner Tube made with reinforced ends that positively will not blow out at those points. Write for full particulars and prices : : : : : :



PENNSYLVANIA RUBBER CO.
ENIT, PENNA.

Bicycle Carriage, Automobile Tires
and Accessories. Mechanical Goods.

OUR TIRE PROPOSITION

Union Jack Single Tube Tires
Guaranteed for the Season.

ONLY \$\$\$—The figures will start you.

Erie Double Tube Tires

ONLY \$\$\$—The figures will make you buy.

Wabash Single Tube Tires

The acknowledged "best" unguaranteed tire on the market. Write quick and get the exclusive sale in your town.

LIMITED BICYCLES

The right kind to retail at **\$25.00** and make you big money.

An endless variety of good things in our **SUPPLY BOOK No. 14.** Our prices are "rock bottom" and we are surprisingly prompt in shipments.

THE UNION SUPPLY CO.
TOLEDO, OHIO

IN WHICH ARE INCORPORATED

**J. G. Swindeman & Co., and
The Toledo Cycle Supply Co.**

J. G. SWINDEMAN, President and Gen'l Mgr.

THE ROAD TO OMAHA AND SIOUX CITY.

Chicago, Milwaukee & St. Paul Ry.

SHORT LINE.
Electric Lighted Trains.
Perfect Service.

TICKETS, 95 ADAMS ST.

Faster than ever to California.

CHICAGO
& NORTH-WESTERN
RAILWAY

THE OVERLAND LIMITED leaves Chicago 6.30 p. m. daily via Chicago-Union Pacific and North-Western Line, arrives San Francisco afternoon of third day and Los Angeles next morning. No change of cars; all meals in Dining Cars. The Pacific Express leaves 10.30 p. m. daily. Personally conducted excursions every Thursday from Chicago and every Wednesday from New England. Inquire of any ticket agent or address

461 Broadway, New York; 601 Chestnut St., Philadelphia; 365 Washington St., Boston; 301 Main St., Buffalo; 212 Clark St., Chicago; 425 Vine St., Cincinnati; 507 Smithfield St., Pittsburgh; 234 Superior St., Cleveland; 17 Campus-Martina, Detroit; 2 King St., East, Toronto, Ont.

Cheap Rates to California

Until and including April 30th, Special Low Rate Colonist Tickets will be sold via the

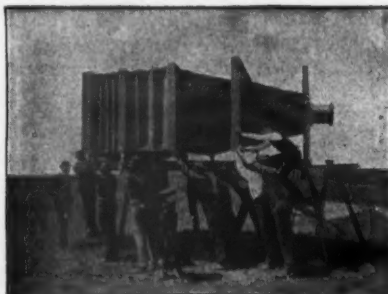
SOUTHERN PACIFIC
COMPANY'S "ODDEN" AND
"SUNSET" ROUTES
TO ALL POINTS IN CALIFORNIA

The rate will be: From Chicago \$30.00; from St. Louis, Memphis and New Orleans \$27.50; from Omaha, Kansas City, etc., \$25.00. Corresponding low rates from all other points north and east.
For particulars and detailed information pertaining to the Southern Pacific Company's Routes, and these special rates to California, address

W. G. NEIMYER, G. W. A., S. P. Co.
238 Clark Street, Chicago, Ill.

EDWIN HAWLEY, Asst Gen'l Tr. Mgr. S. P. Co.
349 Broadway, New York.

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CHICAGO &
ALTON

RAILWAY, TO PHOTOGRAPH
THE ALTON LIMITED.

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DEALERS—DON'T WAIT

For promises, or for motor bicycles that are going to be made. When you have a customer for the latest in bicycles, instead of disappointing, strike while the iron is hot. More customers are lost by being put off than from any other cause. Don't lose a customer by procrastinating.

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Held this year we have been the only maker of motor bicycles to show more than a single sample. At the Chicago Show the **AUTO-BI** Space was the one center of attraction because we had plenty of goods on view, in addition to the **AUTO-BIES** that were constantly on the track.

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The **THOMAS AUTO-BI** retails for \$200; we have the goods; we make immediate deliveries; we have more than a sample.



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Write us for prices when ready for business. Have doubled our output this year on the world's standard Juvenile

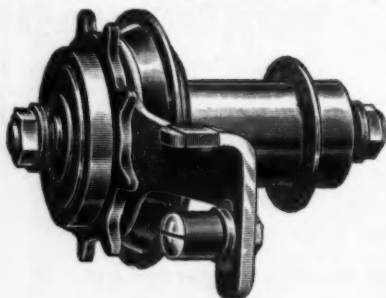
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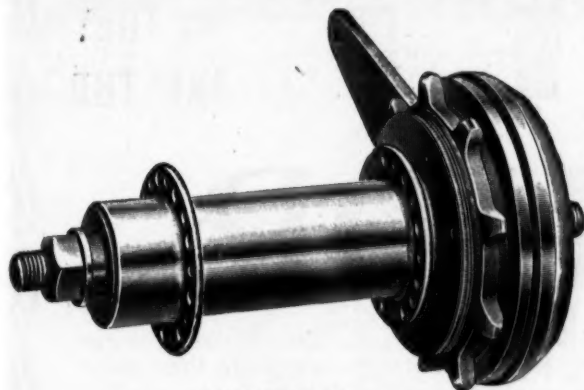
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Appearance hardly indicates presence of brake.
Best material and best workmanship.
Adds only one pound to weight of wheel.

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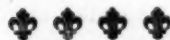
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SIMPLICITY

LESS PARTS
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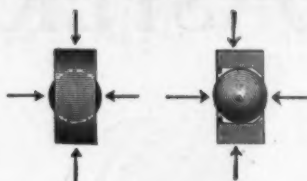
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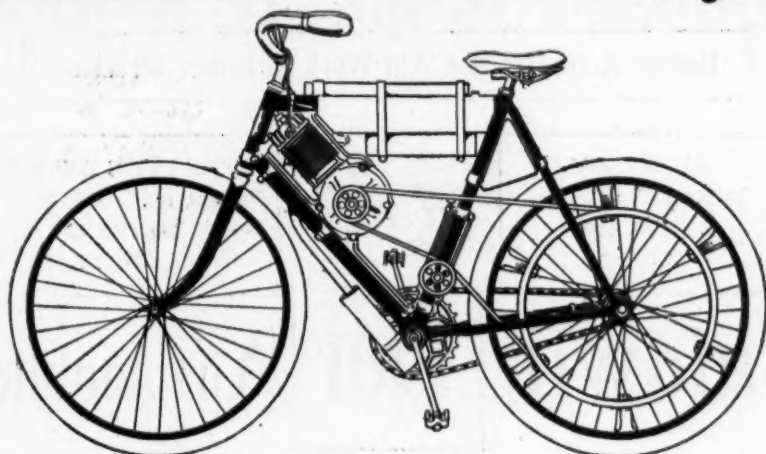
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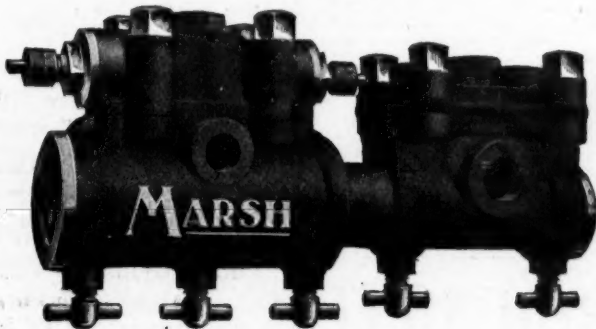


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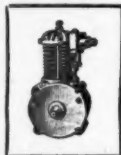
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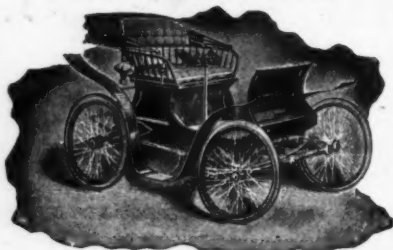


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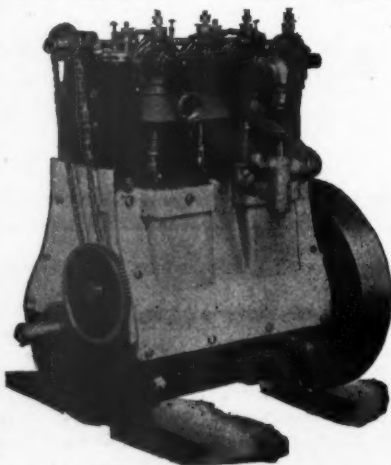
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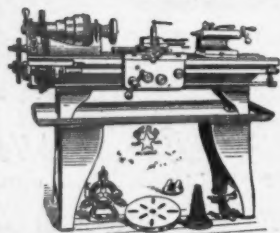
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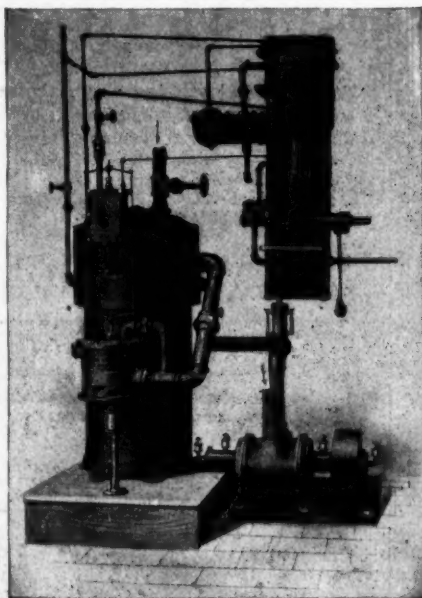
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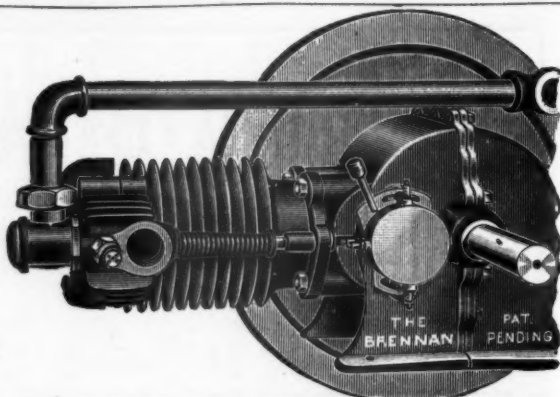
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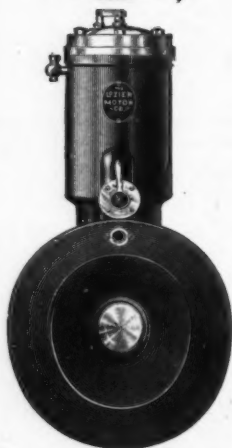
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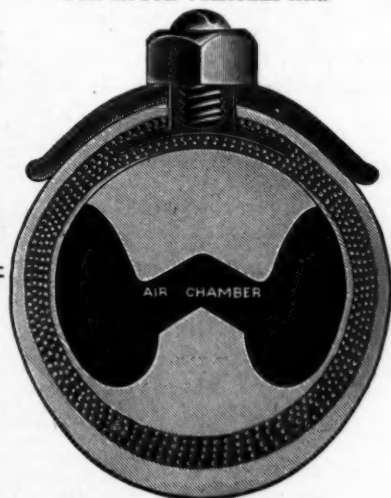
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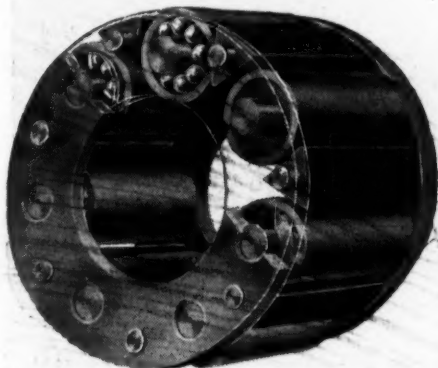
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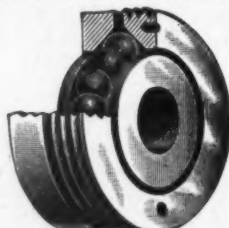
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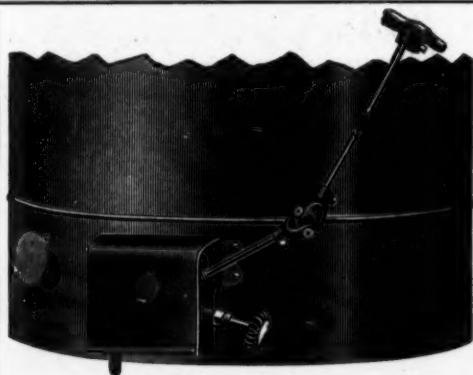


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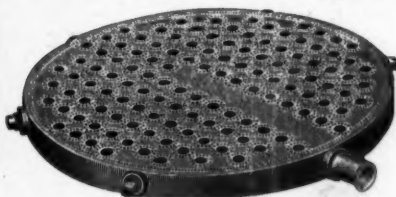
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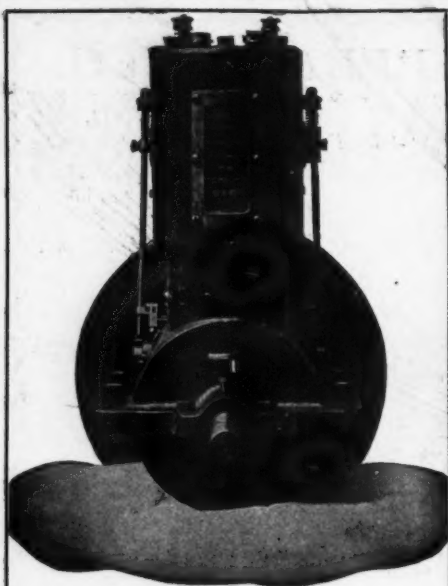
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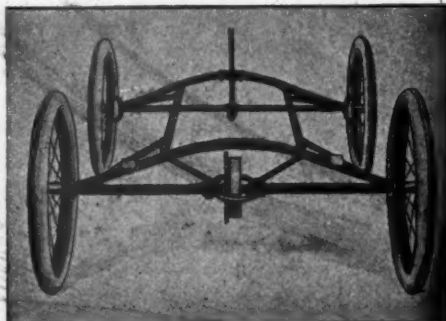
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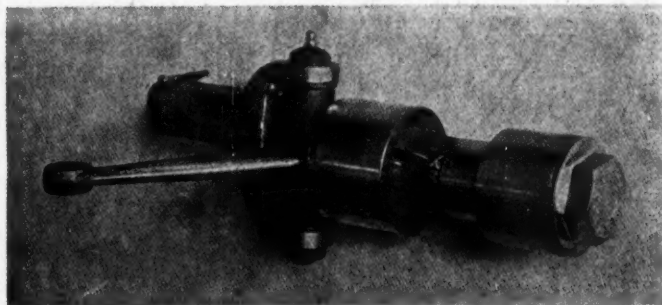
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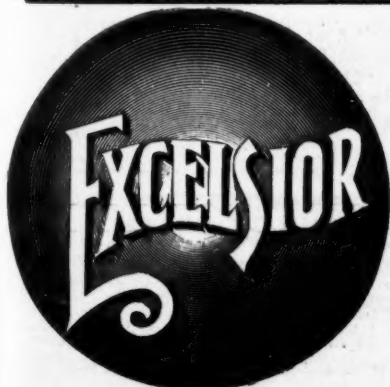
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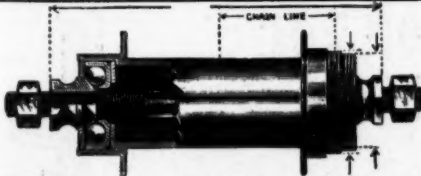
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